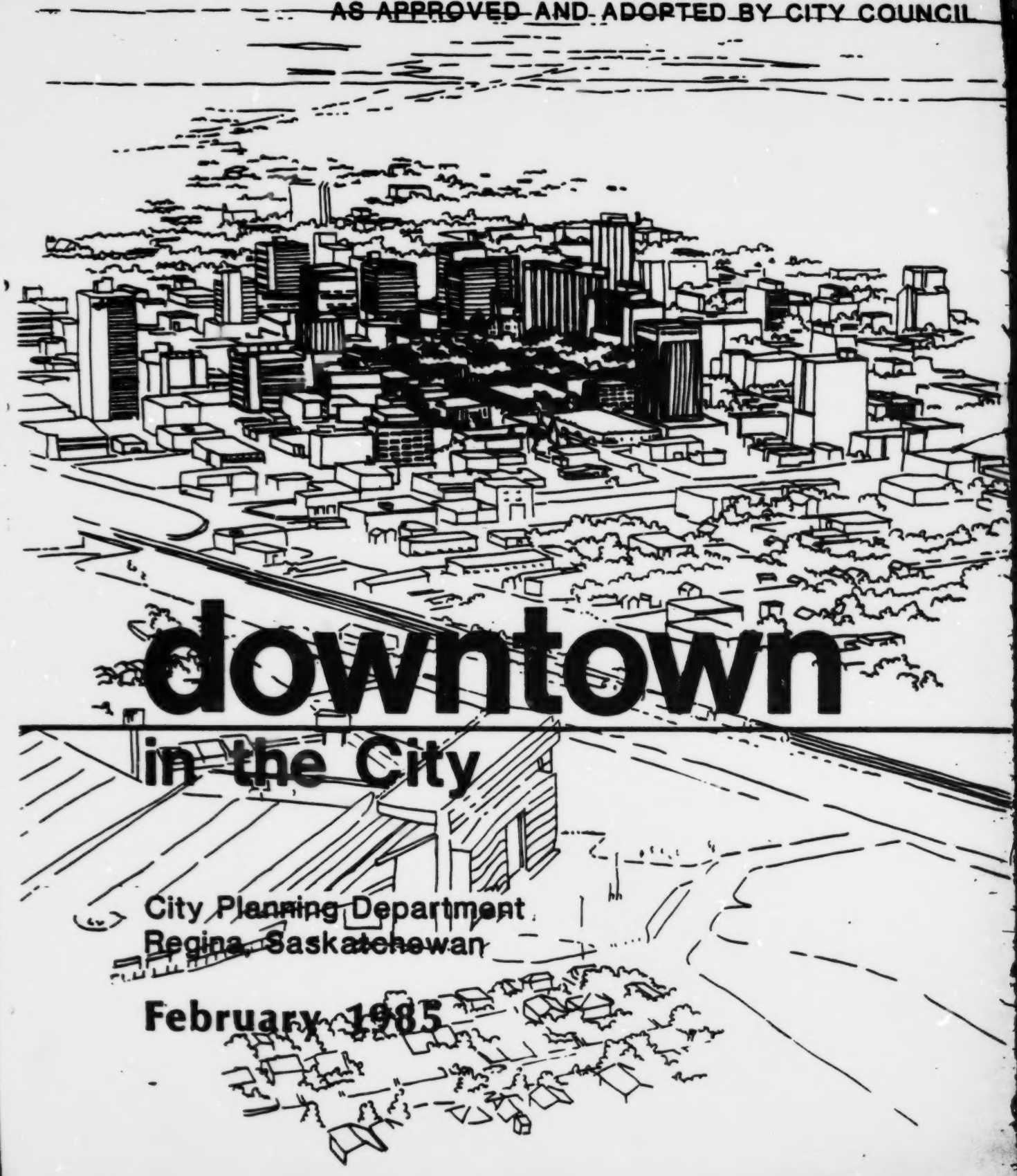
ZONING AND POLICY PLAN

CONSOLIDATED FOR CONVENIENCE - OCT. 1985

AS APPROVED AND ADOPTED BY CITY COUNCIL



downtown

in the City

City Planning Department
Regina, Saskatchewan

February 1985

DOWNTOWN IN THE CITY.

ZONING AND POLICY PLAN.

City of Regina

Planning Department

In October, 1983, an information report on the condition of and prospects for Downtown Regina was published. Following a year of public discussion and review, City Council approved the Zoning and Policy Plan for the downtown area on October 9, 1984.

This report contains only those elements of the zoning and policies that were adopted. Explanatory and other notes have been ommitted.

October, 1985

ZONING AND POLICY PLAN

FOR

DOWNTOWN REGINA

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BACKGROUND.

Planning is a continuous process which does not stop when a plan is adopted. It is nevertheless important to establish firm objectives and policies from time to time. The current phase of the planning program for Downtown Regina was commenced with the development of the Cornwall Centre, which was opened in the fall of 1981. The Cornwall Centre provided a major stimulus to the downtown, and resulted in some very fundamental changes to the accessibility, activities and perceptions of the citizens and visitors who live, work, do business or enjoy themselves in the downtown.

An active planning program resulted in some 15 separate studies of various aspects of the downtown, most of which were completed in 1982 and the early part of 1983. This work resulted in the report "Downtown in the City" dated October, 1983. The purpose was to stimulate a public discussion of some of the major issues that must be confronted over the coming years. The main result of that report was an increased understanding, by a broad segment of interested people, of the opportunities and the problems.

In March, 1984 a zoning proposal was released for public discussion. Comments that had been received on the issues raised in the earlier report were taken into account. There has been surprisingly little public comment on the proposed zoning, and it must therefore be concluded that it is generally acceptable. Nevertheless, based upon the discussions that have occurred with outside groups some refinements have been made to the zoning.

ZONING.

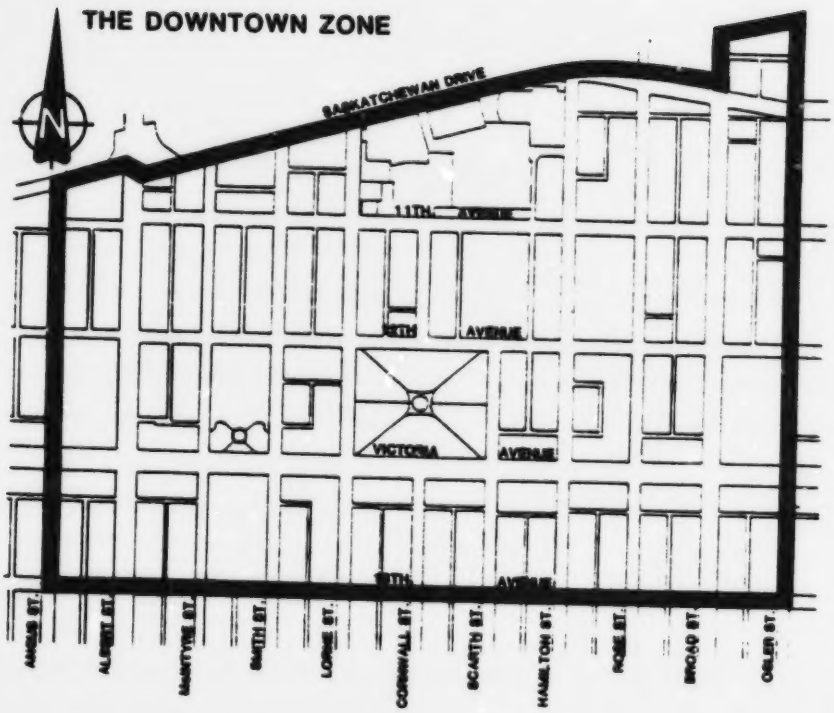
Zoning is an important administrative mechanism for guiding future growth and change. There are a number of objectives that cannot be achieved through the zoning alone. These are best expressed in the form of a policy plan.

POLICY PLAN.

The policies set out below have been identified as necessary to provide guidance for the decisions that are likely to be required over the coming years. It would be very easy to expand the list. For instance there is a continuing program of street enhancement being undertaken by the City in association with Regina's Market Square. This action results from decisions made in previous years and it should of course proceed. However, with the program ongoing there is no need to re-establish the policy. There are many explicit and implicit City policies that represent normal practice for the urban core. The policies of this report have been identified as needed, from the downtown studies undertaken over the past two years.

Taken together with the zoning, which is in itself a form of City policy, the following form the basis for future decisions with respect to development and change in downtown Regina.

THE DOWNTOWN ZONE



D. THE DOWNTOWN ZONE.

General Purpose of Zone

Downtown contains the greatest concentration of buildings as well as the greatest concentration of people working, shopping and visiting in the City. The purpose of the zone with its listed uses, regulations, development standards and design guidelines and policies, is to:

- ensure that downtown is an attractive place in which to work, shop, visit and live;
- ensure that new developments contribute to the downtown environment as a place for people; and to,
- provide a flexible framework for the preparation of development proposals.

1. PERMITTED USES

The development officer shall, subject to the special regulations set out in Section 3 of this zone, issue a permit for all permitted uses, if: -

(a) the floor area ratio (f.a.r.) is less than 2; and,

(b) the building height is less than 12 metres.

1A. USES

The following are the permitted uses in the D. zone: -

(1) Apartment Dwelling Units
(2) Apartment Hotels
(3) Art Galleries or Museums
(4) Athletic Clubs
(5) Auctioneering Establishments

(6) Bakery Shops
(7) Banks and other Financial Institutions
(8) Bowling Alleys
(9) Bus Terminals
(10) Business, Commercial or Technical Schools

(11) Churches
(12) Commercial Entertainment Establishments
(13) Community Colleges
(14) Confectionery Stores

(15) Day Care Centres
(16) Dwelling units in the same building as a permitted use.

(17) Electronic Game Establishments
(18) Eleemosynary Institutions

(19) Fast Food Outlets
(20) Furniture and Appliance Retailing Establishments
(21) Grocery Stores
(22) Health, Social, Cultural or Recreational Clubs
(23) Hotels
(24) Libraries
(25) Liquor Stores

(26) Medical or Dental Clinics
(27) Medical or Dental Laboratories
(28) Motor Club Offices
(29) Motels

(30) Offices for Administration, Sales or General business

(31) Parking - Off-Site Caveated
(32) Personal and Service Establishments
(33) Pool Halls
(34) Printing and Photostating Establishments
(35) Private Clubs
(36) Professional Offices
(37) Public Garages
(38) Public Parking Areas
(39) Parks
(40) Post Offices
(41) Private Schools
(42) Public Meeting Rooms

(43) Radio, Television, Microwave Towers subject to the provisions of Section 10.1
(44) Real Estate or Insurance Offices
(45) Restaurants
(46) Retail Stores
(47) Rooming Housing

(48) Service Stations

(49) Theatres or Cinemas
(50) Trade Union Halls

(51) Senior Citizen's Houses
(52) Service or Repair Shops

(53) Vehicular Sales and Rentals

2. DISCRETIONARY USES AND REGULATIONS

The development officer shall forward all permit applications for discretionary uses to the Director of Planning for consideration and report to the Regina Planning Commission, who shall make a recommendation to the City Council.

A permit may be issued, at the discretion of City Council for a discretionary use or any combination thereof, if: -

(a) there is compliance with the special regulations of Section 3 and the regulations of Section 2B. and 2C. of this zone; and,

(b) conditions have been established to the extent deemed necessary to achieve the objectives of the development standards of Section 4 of this zone; and,

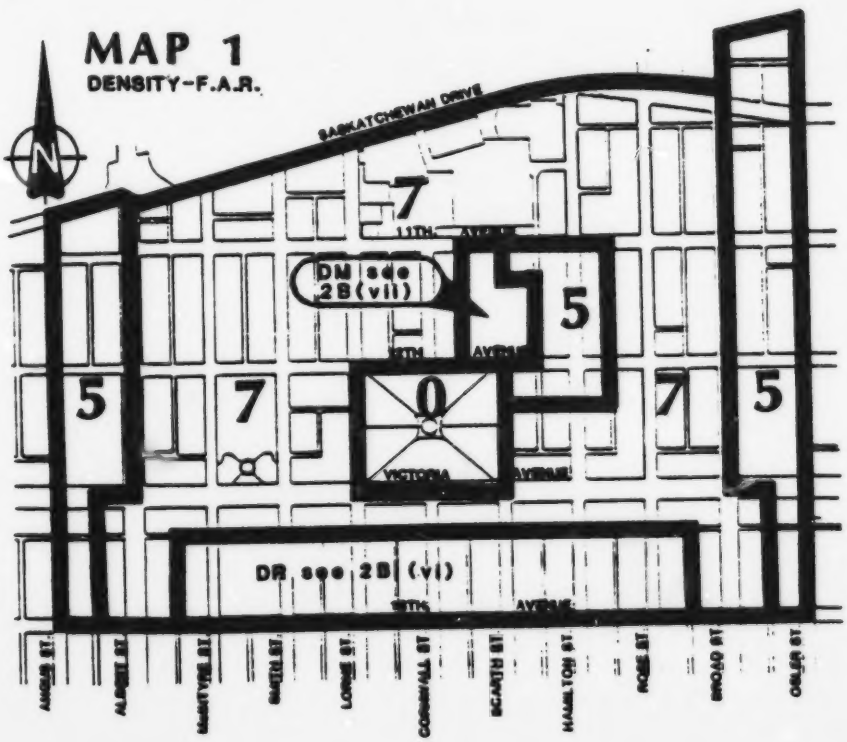
(c) it has been demonstrated that the intent of the design guidelines of Section 5 of this zone have been carefully considered.

2A. USES

All uses listed in Section 1 of this zone, where they exceed the specified floor area ratio and/or height limits of that Section are discretionary uses in this zone.

2B. FLOOR AREA RATIO

The maximum permitted floor area ratio (f.a.r.) shall be as specified on Map 1.



For the purposes of calculating floor area ratio, in this zone, the following shall apply:

(i) Notwithstanding the definition of Gross Floor Area, as set out in Section 1 of this by-law, all areas used for parking that are contained within the exterior faces of the exterior walls of the building, and above grade, shall be included in the floor area ratio.

(ii) All floor area below grade or where the floor level is below grade for at least 50% of its floor to ceiling height, shall be excluded from the floor area ratio.

(iii) In the retail area, as defined on Map 1, floor area used or intended to be used for retail purposes, at the ground or second floor levels may be excluded from the floor area ratio. Second floor retail area shall have direct and separate access to the street, to ground floor retail premises and/or to a plus-fifteen pedway system.

(iv) Where a landscaped open area is provided contiguous with and adjacent to the public sidewalk, and, which is accessible to, and intended for the enjoyment of the general public, then the maximum permitted floor area (f.a.r.) may be increased at the rate of 5 square metres of floor area for every square metre of landscaped open area. In all parts of the zone, except the retail area (Map 1) such open area may be open to the sky or roofed over in the form of an arcade or a galleria for at least the full height of the ground floor. In the retail area this floor area bonus shall not apply to landscaped open area which is open to the sky. This bonus shall not be used for access ways, lobbies and other such spaces which are essential to the normal functions of the building.

(v) Where a building is proposed on the same property as an existing building which has been identified as potential heritage, and that existing building forms an integral part of the overall development scheme for the property, then the floor area of such existing building may be excluded from the floor area ratio.

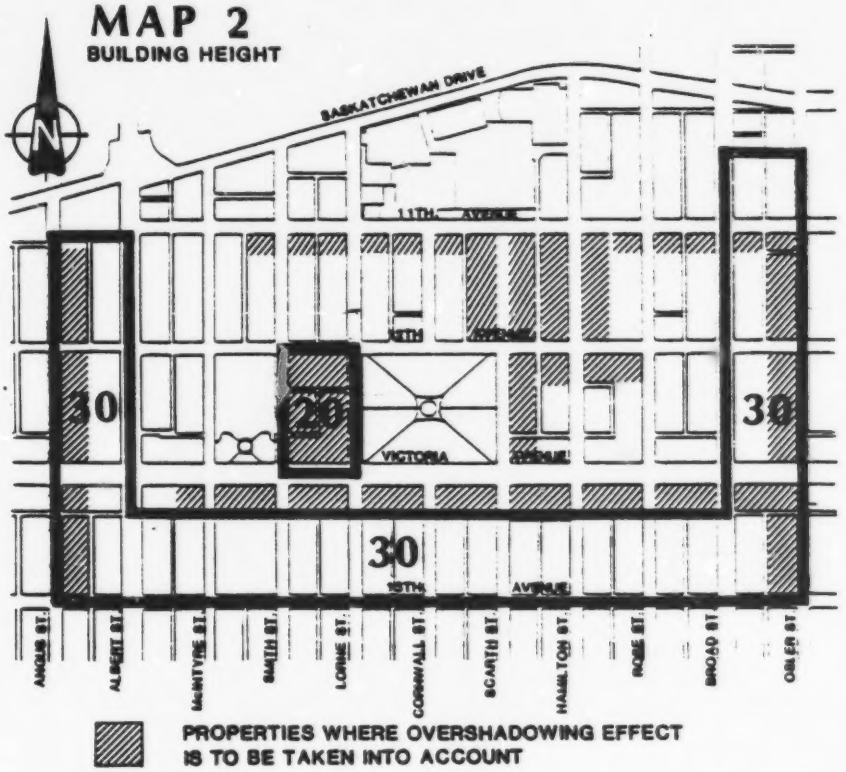
(vi) In the area DR as defined on Map 1, for a building containing commercial uses only the maximum floor area ratio shall be 2.00, provided always that the commercial floor area ratio may be increased, for a mixed use development, at the rate of 1 square metre of commercial floor area for each 1 square metre of residential floor area, and provided further that the maximum permitted floor area shall not exceed 6.00, except as provided for in (iv) and (v) above. In this sub-zone, hotels and/or motels shall be taken as residential uses, for which the maximum permitted floor area ratio of 6 shall apply.

(vii) In the area DM as defined on Map 1 the maximum floor area ratio shall not be restricted provided that development in this area contributes to the general amenity and public enjoyment of the Scarth Street Pedestrian Mall in a manner acceptable to the City Council.

2C. BUILDING HEIGHT

The maximum building height shall not be restricted except as specified on Map 2 and subject to such conditions as City Council may prescribed based upon the development standards specified in Section 4 of this zone.

Where pedestrian level wind and/or sun/shadow conditions are indicated such that they would adversely affect the general amenity of the area and/or the welfare of citizens on the surrounding streets, the City Council may at its discretion, require modifications to the development and/or establish the maximum building height in order to ameliorate such adverse conditions.



3. SPECIAL REGULATIONS

3A. CHANGE OF USE IN EXISTING BUILDINGS

The development officer shall issue a permit for any change of use to a use permitted in this zone that will be entirely contained within any existing building;

provided only that:

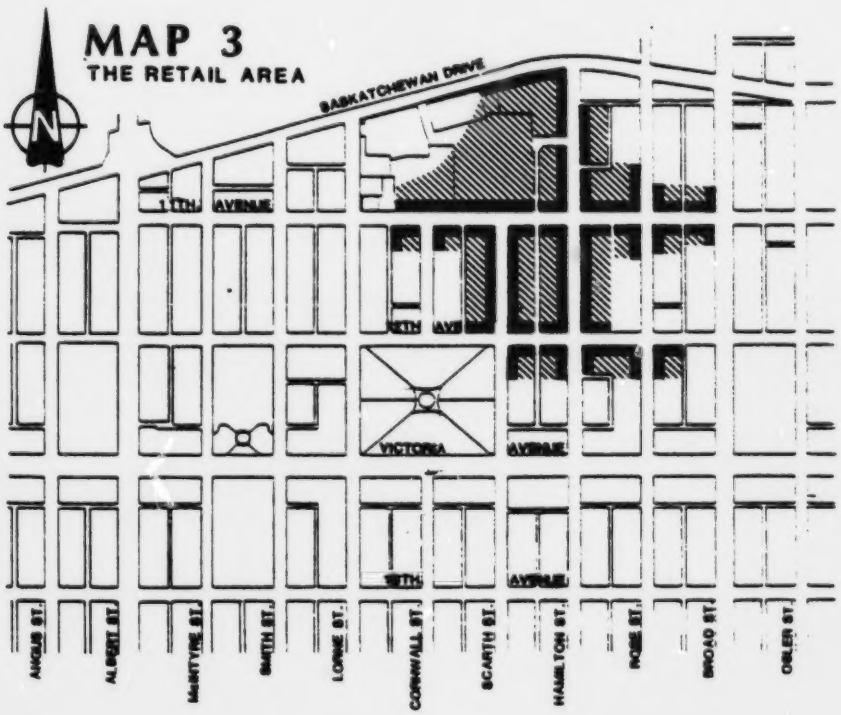
such change of use will not result in a reduction of existing parking and/or loading facilities associated with the existing building.

3B. RETAIL USE IN THE RETAIL AREA

Within the retail area (as defined on Map 3) 65% of the area of the ground floor and 75% of the street frontage, and in the case of a corner site the flankage, shall be designed and developed for retail uses;

provided always that:

at the discretion of City Council the above retail requirement may be reduced. In reaching a decision the Council will be guided by advice received from the Regina Planning Commission and by the intent described in the Design Guidelines for the Retail Area as set out in Section 5 of this zone.



3C. YARDS AND SETBACKS

No front, side or rear yard shall be required except for those properties which have frontage on Victoria Avenue where a 5m landscaped setback from the Victoria Avenue property line shall be provided.

3D. PARKING AND LOADING FACILITES

Parking and loading facilities shall be provided in accordance with the provisions of Sections 8.3A and 8.4 of this by-law; except as provided for in sub-section 3A of this zone.

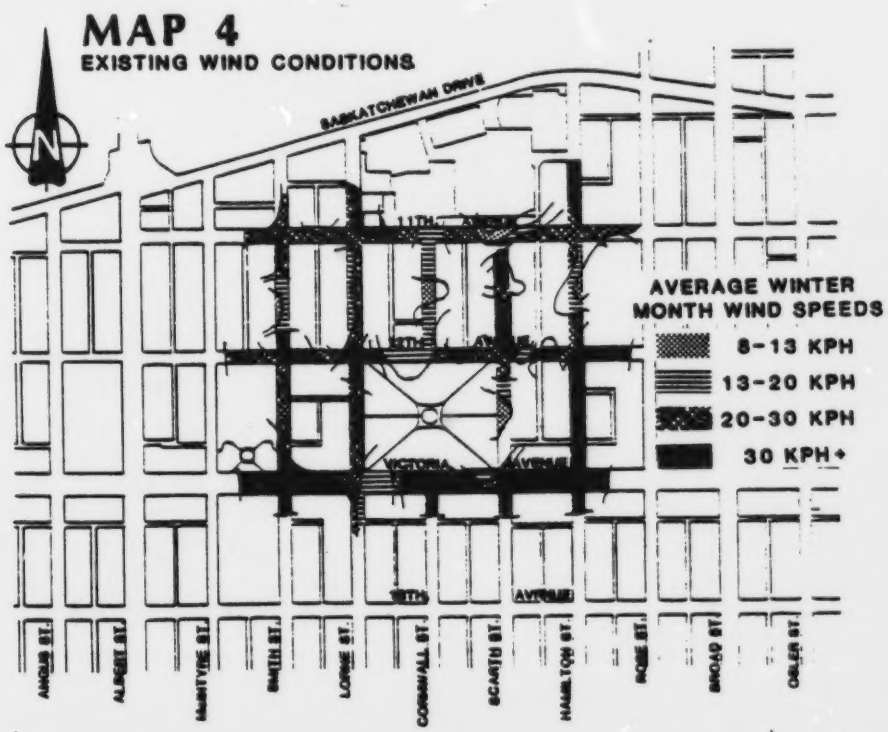
4 DEVELOPMENT STANDARDS

The following standards provide the basis for ensuring that pedestrian level conditions will not be adversely affected by new developments. However, since the climatic factors to which they relate are variable and subjective, absolute compliance with a measured standard is neither required nor possible. Every effort should be made to meet the standards described, and City Council may require development modifications in order to ameliorate unacceptable conditions.

(a) All proposed developments in which any part of the building will be in excess of 20m in height shall be subject to a simulated wind study as defined and described in the policies of the downtown development plan.

(b) Map 4 illustrates the average pedestrian level wind conditions prevailing as of the coming into effect of this Bylaw and assuming that all developments for which approval and preliminary approval have been granted at that time are completed.

(c) In considering a development or use under this Section, City Council shall take into account the degree to which existing pedestrian level wind conditions are affected and the degree to which optimum wind conditions will be achieved when the development is completed. Unacceptable wind conditions should be ameliorated to the greatest possible extent.

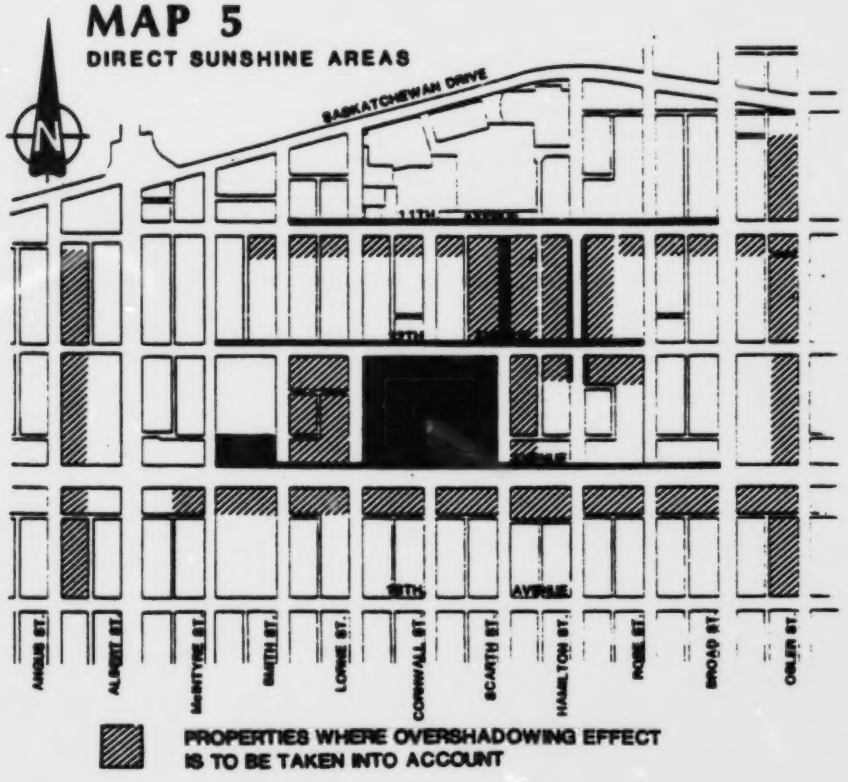


(d) Map 5 illustrates those areas within the downtown, generally parks and other open spaces and, street sidewalks where pedestrian traffic is an important consideration, and, where direct sunshine is of critical importance. Reference should also be made to Design Guidelines 4 (iii), (a) to (j) inclusive.

(e) In considering a development or use under this Section, City Council shall take into account the degree to which the proposed development will reduce the amount of direct sunshine on the areas identified in (d) above, with a view toward maximizing the availability of direct sunshine on such areas.

MAP 5

DIRECT SUNSHINE AREAS



5 DESIGN GUIDELINES

The following guidelines provide a qualitative basis for design interpretation, both on the part of those preparing development proposals and those charged with review and approval procedures. While full and complete compliance with each relevant guideline is a desirable objective, this may not be possible. Every effort should be made to fulfill the spirit and intent of each guideline.

(i) Retail Uses in the Retail Area

(a) In the retail area, maximize retail, restaurant and entertainment uses on the ground floors; and,

(b) restrict the street frontage of entrance lobbies for non-retail uses on upper floors; and,

(c) ensure that there is a continuity of shop windows along the street facade for the display of goods for sale or items of interest to passing pedestrians.

(d) Encourage the provision of weather protection for pedestrians in the retail area and at or close to important Transit locations in the form of awnings, canopies and arcaded areas.

(e) In the retail shopping area, encourage building facades at street level to be built at the property line; and,

(f) Encourage the provision of transparent facades at street level with well-lit windows. Avoid unlit blank walls.

(g) Encourage the provision of bright and colourful signage in pedestrian areas and particularly canopies and canopy signs with lighting underneath.

(ii) Streets and Parking

(a) Restrict access to parking lots or parkades in the retail area in order to reduce pedestrian/vehicular conflicts on the sidewalks.

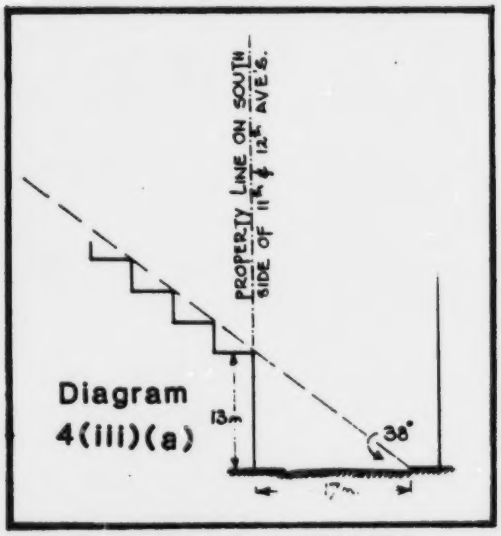
(b) Ensure that Victoria Avenue is an attractive ceremonial street and restrict or do not permit parking lots or parkades to front onto it; and,

(c) Restrict or do not permit access to parking lots or parkades along Broad and Albert Streets, in order to ensure unimpeded transit and traffic flow.

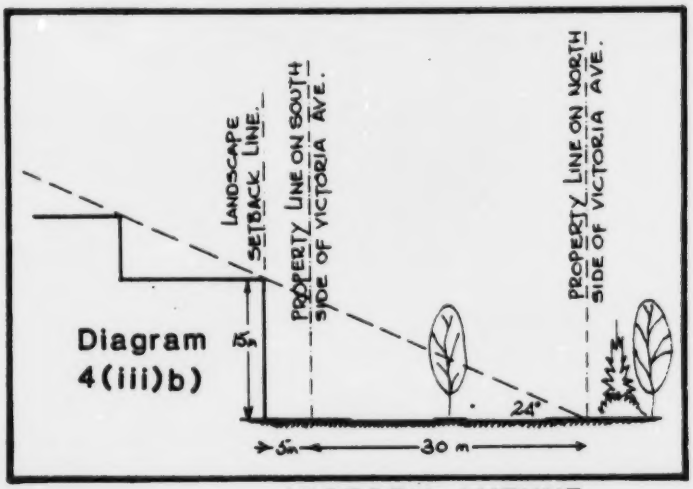
(iii) Building Height and Sunlight Penetration

(a) Restrict the degree to which tall buildings will cast shadows on the north sidewalks of 11th and 12th Avenues, during the summer months between March and September 21 and between 12 noon and 2:00 p.m. All new development should be setback in accordance with diagram 4 (iii) (a).

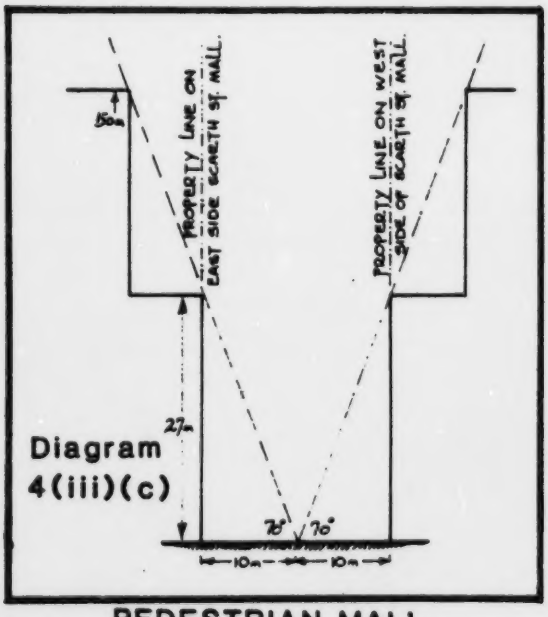
(b) Restrict the degree to which tall buildings will cast shadows on the north property line of Victoria Avenue between Cornwall and Albert Streets between November 10 and January 30 and between 12 noon and 2:00 p.m. All new development should be set back in accordance with diagram 4 (iii) (b).



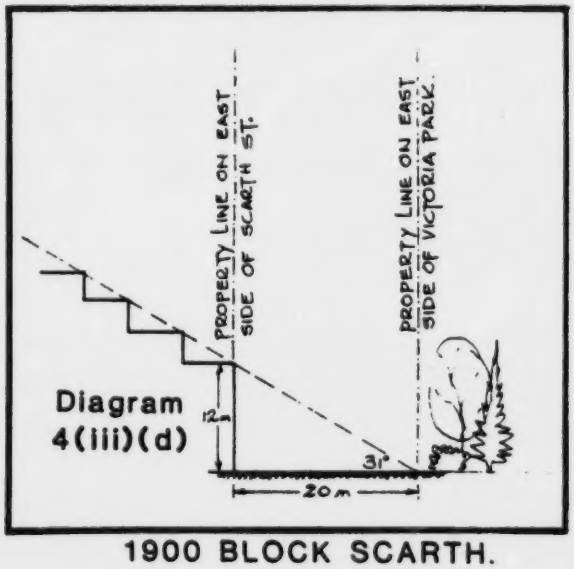
11th & 12th AVENUES.



VICTORIA AVENUE.



PEDESTRIAN MALL.



1900 BLOCK SCARTH.

(c) Ensure that at least half of the Scarth Street Mall is in direct sunshine, during the summer months between March and September 21 and between 12 noon and 2:00 p.m. All new development should be setback in accordance with diagram 4 (iii) (c).

(d) Restrict the degree to which tall buildings will cast shadows on the east boundary of Victoria Park in the 1900 block Scarth Street during the summer months between March and September 21 and after 10:00 a.m. All new development should be setback in accordance with diagram 4 (iii) (d).

(e) Encourage the development of low-rise buildings on the block bounded by 12th and Victoria Avenue and Smith and Lorne Streets in order to:

(i) extend the hours of sunlight penetration into both Victoria Park and Queen Elizabeth Plaza;

(ii) ensure that the melodic sound of the Darke bells on the Knox Metropolitan Church can be heard over as wide an area as possible; and,

(iii) preserve the visual dominance of the bell tower.

(f) Provide a height transition between the tall buildings of the downtown and the low-rise buildings of adjacent neighbourhoods.

(g) Tall buildings at the east and west edges of downtown should be constructed in such a manner as to ensure adequate daylight and sunlight into adjacent neighbourhoods, in the morning hours in the case of Angus Street and the afternoon hours in the case of Osler Street.

(h) Encourage variety and interesting features at the roof levels of tall buildings.

(i) Consider the appearance of the flat roofs on low buildings and encourage measures that will make them more attractive. Consider opportunities for recreational and other uses on large areas of low flat roofs.

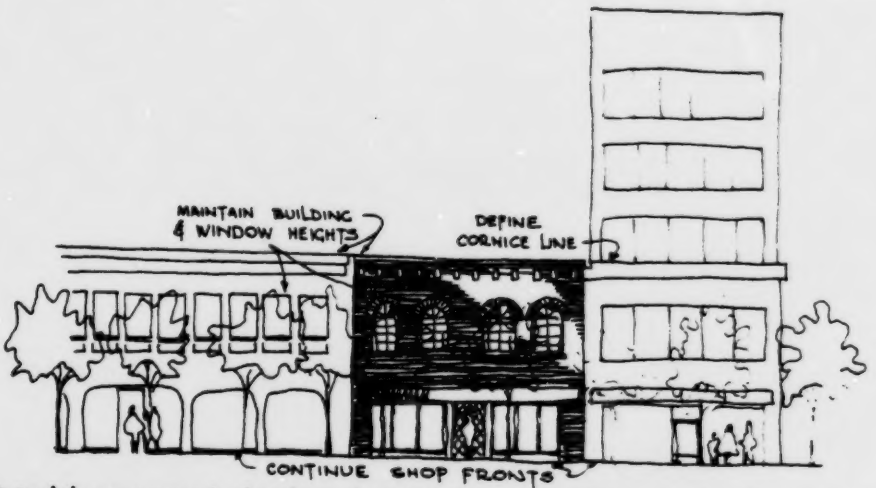
(j) where tall buildings are proposed encourage substantial setbacks at second or third floor levels in order to avoid the street canyon effect.

(iv) Relationship to Adjacent Buildings

(a) Encourage the retention of older buildings and particularly those that reflect the character of an immediate environment.

(b) Where new development is proposed adjacent to older buildings and particularly those that display a design quality appropriate to the area, maintain a continuity of and respect for important features such as rooflines, cornices, window heights, etc. in the new development.

(c) Where tall buildings are introduced into an area with predominately smaller buildings, provide a major break in the facade treatment to reflect predominant roof levels.



New developments should respect design features of adjacent buildings.

(v) Building Materials and Landscaping

(a) Discourage the use of smooth mirror-like finish materials on new buildings and particularly on the south facing walls of tall buildings.

(b) Encourage the use of warm toned brickwork and other textured materials, particularly for surface areas on the lower floors of new buildings and building renovations.

(c) Ensure that there is a setback along common property lines at the 2nd or 3rd floor levels in order to avoid tall, blank sidewalls.

(d) Preserve and protect existing mature trees and make every effort to ensure their retention when new development occurs.

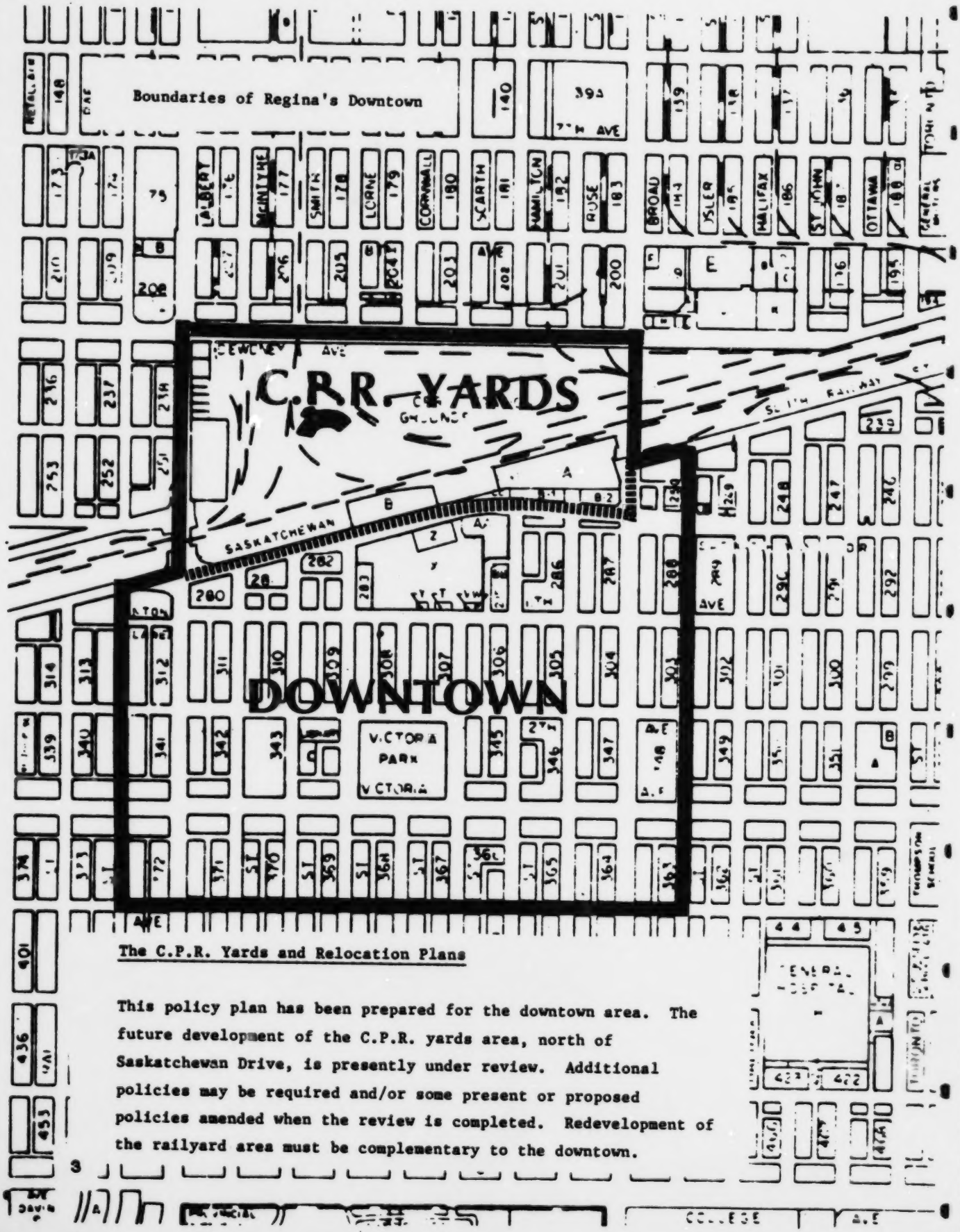
(e) Where landscape areas or setbacks are proposed with new developments provide sufficient space for the planting of trees that can grow to a substantial size, and avoid low profile, high maintenance landscaping.

(vi) Lighting and Signage

(a) Throughout downtown, encourage special pedestrian level lighting on new and existing buildings where extensive blank walls are provided or necessary at street level.

(b) Encourage flood lighting on important government and institutional buildings and on important landscape features.

POLICY PLAN.



The C.P.R. Yards and Relocation Plans

This policy plan has been prepared for the downtown area. The future development of the C.P.R. yards area, north of Saskatchewan Drive, is presently under review. Additional policies may be required and/or some present or proposed policies amended when the review is completed. Redevelopment of the railyard area must be complementary to the downtown.

POLICIES FOR DOWNTOWN REGINA - 1984.

It is interesting to compare the policies put forward in 1979 with those described below. In 1979, 5 out of the 10 policies were concerned with parking and since parking policy remains largely unresolved it is still necessary to bring forward policies in 1984. A very general policy for the improvement of the downtown environment was adopted in 1979. This in turn lead to the formation of the Business Improvement District (now Regina Market Square). An increased awareness of environmental opportunities and needs has resulted in this being the major policy emphasis in 1984. The policy brought forward for residential use remains almost unchanged. In 1979 there was a policy for a major traffic improvement and it has been implemented (Saskatchewan Drive). No traffic problems have been identified for action in this new policy plan. A new policy area for 1984 stems from the emerging interest in heritage preservation.

The policies are set out below under 7 headings. In each of these general areas there is a rationale. In three cases, because of the detailed nature of the subject, reference is made to a separate report. These are for the needs of bicyclists, the review of wind conditions, the specifics of heritage and the outstanding policies of the transportation program.

TRANSPORTATION

The following policy was recommended in the October, 1983 report and is brought forward without change.

(a) "THAT THE DEVELOPMENT OF THE MULTI-MODAL TRANSPORTATION CENTRE BE SUPPORTED AND THAT NEGOTIATIONS CONTINUE SUCH THAT THE PROPOSAL CAN BE IMPLEMENTED."

The multi-modal transportation centre represents the opportunity to centralize a number of transportation functions at Union Station. The existing building is likely to be retained

indefinitely, since it is a designated heritage structure.

Union station serves as the VIA rail passenger terminus. However, with one train per day in each direction, the potential of the building is not being used. There is increasing interest in the improvement of Canada's passenger train service. At the same time there is the long term possibility that, with rail relocation, the trains will be diverted around the City. In spite of these uncertainties, it can be assumed that passenger trains will be stopping at Union Station for the next 10 to 15 years.

The inter and intra Provincial bus services of Greyhound, S.T.C. etc. are presently served by an inadequate and poorly located building and property. In contrast, the bus depot in Saskatoon is relatively new, adequate and centrally located. The use of Union Station as Regina's bus depot has the advantage of better facilities and an accessible location. The Provincial Government provides capital funding to the S.T.C. operation. Therefore, the position taken by the Province is of critical importance. In 1983, the Provincial Government decided not to provide funding for their share of developing an improved bus depot at Union Station.

Despite the uncertain future, Union Station is a well located, essential and available facility. The property occupied and used as a bus depot is inadequate and poorly located. Taken at face value the merits of combining the two are great. What is needed is a concerted effort on the part of all three levels of government to reopen negotiations, find the necessary funding and proceed with the project.

The following policy was recommended in the October, 1983 report and is brought forward without change.

b) "THAT THE RECOMMENDATIONS OF THE REPORT "BICYCLE STUDY AND SURVEY" DATED OCTOBER, 1982, BE PURSUED WITH A VIEW TO ENCOURAGING GREATER USE OF BICYCLES, PARTICULARLY FOR THE JOURNEY TO WORK."

Little interest has been shown in this subject. There is an awareness of the fact that provision can and should be made for bicycles, at various locations in the downtown. Beyond that, in Regina, bicycles are seen as a recreational rather than a utilitarian means of movement. This attitude may change. The policy is relevant and should be adopted.

Bicycle racks are provided in a number of downtown locations. During the warm summer months many people do use their bicycles to come downtown, for work, to shop and for pleasure. For security reasons these bicycles must be locked to something solid, and, in locations where no specific racks are provided, cyclists will use the nearest available pole, tree or other urban appurtenance. It should be a continuing policy of the City to encourage developers and others to make provision for bicycles throughout the downtown, but, not to require such facilities as a condition of permit approval.

Many cities have defined bicycle routes. These include cities with climatic conditions similar to those of Regina, such as Saskatoon and Edmonton. Regina has made an excellent start with the Devonian bicycle path along Wascana Creek. The report "Bicycle Transportation in Downtown Regina" dated October 1982, includes a plan of suggested routes extending to all parts of the City. This route map should be referred to for future consideration and possible action.

PARKING

A number of policy recommendations were made, in the October 1983 report, in the general area of parking in downtown. In spite of the apparent surplus of available parking in downtown, as

determined by the 1983 Parking Study, a number of issues remain unresolved. These include:

- a public perception of a lack of parking particularly for shoppers and visitors;

- that two major developments, now under construction, will result in the conversion of two existing parkades from predominately short-term customer parking to commuter parking;

- there are public funds, set aside for the purpose of providing off-street parking facilities in downtown, which can be used when an opportunity is identified;

- the 1983 Parking Study recommended an increased parking requirement for new office developments. Public response to the recommendations is presently being obtained. Initial responses indicate opposition to the idea;

- traditionally parkades are designed to facilitate the movement of cars into and out of parking spaces, and, little attention is given to the people who occupy the cars. Stairways, elevators and entrances and exits for people are generally secondary considerations. Lighting levels are generally low and in some cases this can cause a sense of insecurity and even an unsafe situation.

Undoubtedly some people in businesses need their cars during the working day. Furthermore, developers know that the office space in their buildings cannot be leased if there is no available parking at least for the executives in their buildings. Since parking will inevitably be provided with new development it is worth considering not having a by-law requirement. This is a policy being pursued in other Canadian cities where, in order to reduce traffic congestion, commuter parking in the downtown is discouraged.

Downtown parking is needed for shoppers and for visitors and is provided in association with major stores and hotels. The Cornwall Centre has two major parkades with a total of 1,165 spaces and the Bay has a parkade with 378 spaces. There are four other parkades that make provision for shoppers, etc., one of which is well removed from the principle demand area. Two of them will be pre-empted by major office developments now under construction and will be used predominately for commuters. These four are - Regina Inn (400 spaces with 170 for public use) - Cornwall Street Parkade (400 spaces with 200 for public use most of which will be pre-empted) - Simpsons Parkade (327 spaces with 247 for public use most of which will be pre-empted) - Midtown Plaza Parkade (285 spaces with 160 for public use). There are in addition, 1,133 on-street metered spaces for short-term parkers.

Based upon the policy recommendations brought forward in the 1983 Parking Study, the policy recommendations of the report "Downtown in the City" of October 1983, and the responses received to the above reports, the following policies brought forward for off-street parking facilities at this time are:

(c) THAT THE CITY IN ASSOCIATION WITH THE REGINA MARKET SQUARE BOARD OF MANAGEMENT UNDERTAKE A CONTINUING PROGRAM OF PROMOTION TO ENCOURAGE THE USE OF EXISTING SHORT-TERM PARKING FACILITIES.

(d) THAT PARKING AREAS AND PARKADES, THAT ARE USED BY COMMUTERS DURING THE WEEK, BE MADE AVAILABLE FOR SHORT-TERM PARKING ON THURSDAY EVENINGS AND ON WEEKENDS.

(e) THAT PREFERRED PARKING AREAS BE ESTABLISHED AS ILLUSTRATED IN THE PLAN "PARKING AREAS" AND THAT EVERY EFFORT BE MADE TO ENCOURAGE THE DEVELOPMENT OF SHORT-TERM PARKING FACILITIES IN THOSE AREAS.

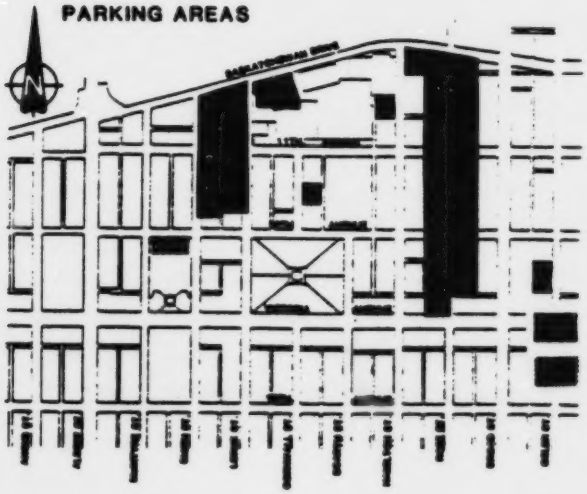
(f) THAT THE RATE STRUCTURE IN PARKING FACILITIES BE SUCH AS TO ENCOURAGE SHORT-TERM OCCUPANCY AND DISCOURAGE COMMUTER PARKING. THIS IMPLIES INEXPENSIVE INITIAL FEES AND ASCENDING COSTS FOR LONGER TERM PARKING.

(g) THAT CONSIDERATION BE GIVEN, IN FUTURE YEARS, TO REMOVING THE PARKING REQUIREMENT, EXCEPT FOR HOTELS AND RESIDENTIAL USES AS APPLIED THROUGH ZONING CONTROLS, AND THAT, A PAYMENT-IN-LIEU CHARGE BE MADE, ON A PROPORTIONATE BASIS SUCH THAT THE CITY CAN DEVELOP PARKING FACILITIES APPROPRIATE TO THE NEEDS OF THE DOWNTOWN AS A WHOLE.

(h) THAT, IN ORDER TO REDUCE PEDESTRIAN/TRAFFIC CONFLICTS, THE PROVISION OF OFF-STREET PARKING BE RESTRICTED ON THE BLOCK BOUNDED BY SCARTH AND HAMILTON STREETS AND 11TH AND 12TH AVENUES.

(i) THAT THE CITY DEVELOP AND MAINTAIN A CAPITAL FUND FOR THE PURPOSE OF PROVIDING PARKADES, IN APPROPRIATE LOCATIONS PRIMARILY FOR SHORT-TERM PARKING. CONSIDERATION SHOULD BE GIVEN TO THE CONCEPT OF A PAY-IN-LIEU CHARGE TO BE MADE AGAINST NEW DEVELOPMENT, IN PLACE OF THE PARKING REQUIREMENT, WHETHER PARKING IS PROVIDED OR NOT.

PARKING AREAS



THE PEDESTRIAN ENVIRONMENT

The pedestrian environment is particularly important in the downtown. There were a number of policy recommendations in the "Downtown in the City" report, that are intended to affect and improve the pedestrian environment. Broadly speaking there are two main aspects to consider. First is the question of pedestrian comfort which is affected primarily by weather conditions. Second is the question of pedestrian enjoyment which is affected by the physical and visual environment.

Pedestrian Comfort

Regina is subject to climatic extremes. The most significant extremes are those of the cold in winter and the wind and particularly when the two are combined. On the positive side, exposure to direct sunshine and shelter from heavy rainfalls are benefits to be desired for pedestrians.

Proposals have been made to increase the level of pedestrian comfort in the downtown. In the mid-60's decisions were made that would have resulted in subground pedestrian corridors connecting important buildings. As a result the Midtown Centre and C.I.B.C. buildings, for example, were constructed with basement level shopping and other facilities. In the mid-70's the opportunity for at-grade pedestrian malls was investigated, and, the Scarth Street Mall was established. More recently the concept of a "+15" pedway system has been developed. There are now two pedways in existence. Clearly the most effective pedestrian environment, in the downtown, is found in the Cornwall Centre. Here there is protection from the elements, no matter what the outside weather conditions are like. Sunshine percolates through the sky-lights. The evergreen trees provide a feeling of comfort throughout the year. The fact that the pedestrian is in a traffic free environment contributes to the pleasure of being there.

The City of Regina is subject to wind conditions that exceed those of any other major Canadian city. The tall buildings of

downtown have an effect and under certain circumstances they increase the speed of the wind at the pedestrian level, along the streets and sidewalks.

The policy with respect to wind conditions in the downtown and particularly in those areas where pedestrian volumes are high is:

(j) THAT EVERY EFFORT BE MADE TO MAKE PEDESTRIAN LEVEL WIND CONDITIONS COMFORTABLE FOR WALKING AT A LEISURELY PACE OR STANDING AND WAITING FOR A BUS, ETC., THROUGHOUT THE YEAR AND IN ALL WEATHER CONDITIONS, ON THE DOWNTOWN STREETS AND SIDEWALKS.

The zoning schedule for downtown Regina provides for a requirement that, under the discretionary use procedures, tall buildings shall be subject to a simulated wind test before a development permit is approved. This requirement is stated in the form of a "development standard". The City Council has the discretionary authority to require that, where unacceptable wind conditions are likely to result, then changes may be required to the design of the building in order to improve pedestrian level wind conditions. The policies with respect to the required simulated wind test shall be:

(k) THAT THE WIND STUDY MODEL (SCALE 1:500) BE MADE AVAILABLE TO DEVELOPERS AND/OR ARCHITECTS, AT NO CHARGE, AND THAT ALL COSTS ASSOCIATED WITH THE TESTING PROCEDURES ARE BORNE BY THE DEVELOPER.

(l) THAT WIND TESTS BE UNDERTAKEN BY A QUALIFIED WIND ENGINEER AND UNDER LABORATORY CONDITIONS ACCEPTABLE TO THE CIVIC ADMINISTRATION.

(m) A REPORT OR STATEMENT OF THE EXPECTED WIND CONDITIONS ON THE SURROUNDING SIDEWALKS AND STREETS, FOR A RADIUS OF AT LEAST 200 METRES FROM THE EXTREMITIES OF THE PROPOSED DEVELOPMENT, BE PREPARED AND SUBMITTED AS PART OF THE DEVELOPMENT PERMIT APPLICATION AS DESCRIBED IN THE DISCRETIONARY USE SECTION OF THE D. ZONE OF THE ZONING BY-LAW.

It is assumed that, where problems are identified during the testing procedures, then design changes will be made prior to the submission of the development permit application. A detailed explanation of wind impact study methodology along with technical and illustrative material will be found in the report "Pedestrian Level Wind Study", dated July 7, 1982.

Uncomfortable wind conditions already do exist in a number of downtown locations as a result of the existing buildings. It would be unreasonable to require that new developments overcome the mistakes of the past. The development standards, as set out in the zoning by-law, are based upon an acceptance of existing conditions and the objective that new buildings will not worsen those conditions and if possible will bring about an improvement. In those parts of the downtown where the pedestrian level wind conditions are already uncomfortable other, more specific, remedial measures will be needed.

Pedestrian Enjoyment

As pedestrians walk about in the downtown they derive pleasure from or are repelled by the visual environment. Positive features include:

- attractive street and sidewalk paving;
- sidewalks wide enough to permit people to walk together without being forced into single file;
- shop-windows displaying goods for sale;

- colourful signs and awnings;
- street trees and mini-parks with sculpture, benches and/or fountains and the like;
- pedestrian level street lighting; and
- a choice between sunny and shady places.

Features that do not contribute positively to the visual environment for the pedestrian include:

- blank walls;
- open dusty parking lots;
- vacant shops and buildings;
- buildings which do not have a change of scale between upper floors and the ground floor - ie. those that do not respect the scale of pedestrians at street level.

The report "Downtown Pedestrian Concept Study" dated June 1983, contains a number of ideas intended to improve the pedestrian environment. Ideas and options for implementable street improvements are illustrated and discussed. The suggestions include:

- ideas that would increase the number of people who come downtown, such as the inclusion of a farmers market and activity interest places in Victoria Park;
- mid-block pedestrian connections to shorten walking distances and add different interest points for pedestrians;
- various forms of arcades and canopies to provide shelter and interest.

This study also described the benefits and costs associated with a pedway system and concluded that such a system, while having some advantages was not appropriate to downtown Regina at this time. This conclusion is generally supported by the business community. All studies and comments however have indicated that, in order to maintain long-term options provision should be made for a future pedway system when new developments are considered.

The policies brought forward at this time are:

(n) "THAT AN ATTRACTIVE AND SAFE PEDESTRIAN ENVIRONMENT, PARTICULARLY IN THE RETAIL SHOPPING AREA, BE THE FIRST AND FOREMOST CONSIDERATION WHEN NEW DEVELOPMENTS ARE UNDER REVIEW.

(o) THAT IN ALL NEW DEVELOPMENTS OR MAJOR RENOVATIONS CAREFUL CONSIDERATION BE GIVEN TO THE APPEARANCE AND PHYSICAL FEATURES OF THE BUILDING AT THE GROUND FLOOR LEVEL TO ENSURE THAT THE DEVELOPMENT SCALE AND ANY AMENITIES PROVIDED ARE COMPATIBLE WITH THE PEDESTRIAN, THEREBY ENSURING A HUMAN SCALE AND ENVIRONMENT.

(p) THAT PROVISIONS BE MADE FOR SHELTER FROM WIND, RAIN AND SNOW FOR THE BENEFIT OF PEDESTRIANS, AND, THAT WELL USED SIDEWALKS ARE SUNNY PLACES TO THE GREATEST POSSIBLE EXTENT."

Note that standards and guidelines are included in the proposed zoning to take account of some of the implications of the above policies.

(q) "THAT CLIMATE CONTROLLED LINKAGES BE DEVELOPED BETWEEN PARKADES AND THE IMPORTANT PEDESTRIAN DESTINATION PLACES IN THE DOWNTOWN.

(r) THAT NEW DEVELOPMENTS IN THE AREA BOUNDED BY:

- THE LANES, WEST OF SCARTH STREET, AND, EAST OF HAMILTON STREET; AND
- A LINE 150 FEET (45 METRES), NORTH OF 11TH AVENUE, AND SOUTH OF 12TH AVENUE;

MAKE PROVISION FOR A FUTURE PEDWAY SYSTEM AT THE PLUS 15 LEVEL."

THE VISUAL ENVIRONMENT

The following two policies were recommended in the October 1983 report and both are brought forward without change:

(s) "THAT SMALL POCKET PARKS, PLAZAS AND LANDSCAPED OPEN SPACES BE ENCOURAGED THROUGHOUT THE DOWNTOWN IN ASSOCIATION WITH NEW DEVELOPMENTS, PARTICULARLY IN SHELTERED SUNNY LOCATIONS."

(t) "THAT IN PARKS, PLAZAS AND OPEN SPACES, SUFFICIENT AREA BE PROVIDED FOR THE PLANTING OF SUBSTANTIAL TREES IN PREFERENCE TO LOW PROFILE HIGH MAINTENANCE LANDSCAPING."

(u) "EVERY ENCOURAGEMENT BE GIVEN TO THE INTRODUCTION OF URBAN ART FORMS SUCH AS SCULPTURE, WATER DISPLAYS, COLOURFUL UMBRELLA'S AND THE LIKE, WHEREVER LANDSCAPING OPPORTUNITIES OCCUR."

Encouragement can be given to the development of such small pocket parks through bonus zoning and this incentive is now included in the zoning. Small pocket parks are more appropriate in some locations than in others. In the shopping area they can result in disruption to the retail continuity. To be useful parks should be in sunny locations and protected from extreme wind conditions. When open space is a bonusable item, to increase the allowable floor area there is the danger that the objective becomes that of gaining the benefit from the bonus, rather than ensuring that pocket parks are advantageously located. Therefore, the policy can and should be pursued, with a view to ensuring that when open spaces are provided, whether through a bonus or not, that these spaces are attractive to people in the downtown.

Regina has a relatively short growing season. Landscaped areas are either covered in snow or subject to freezing for more than half of the year. Consequently, even those landscaped areas where a considerable effort is made, during the short summer months, are attractive for only a short time. In contrast trees, and particularly evergreens

maintain their beauty throughout the year. Fallen snow, and hoarfrost on trees in winter can be very attractive. There are many examples, throughout downtown, of inappropriately landscaped areas. Examples include the Post Office, where nothing is planted in the flower boxes and the new liquor store where the small shrubs in their concrete containers can never amount to much. Good examples include the trees in Library Park and the trees in front of the Assiniboia Club.

It is not intended through the adoption of this policy, that provision for attractive floral displays should be avoided. Where there is room for substantial trees there will also be space for summer-time floral displays.

The following policy was also recommended in the October 1983 report and is brought forward without change:

(v) THAT THE PROVISIONS OF THE SIGN REGULATIONS, AS THEY AFFECT DOWNTOWN, BE REVIEWED AND AMENDED WITH A VIEW TO ENCOURAGING BRIGHT AND COLOURFUL SIGNS IN THE DOWNTOWN.

This policy recommendation requires a further action. Downtown is the one area in the City where a bright and colourful display of signs is to be expected. Yet in downtown the sign regulations do not permit projecting signs which are usually the most common sign type. The entire sign regulation section in the Zoning Controls document are written in a negative way, describing what cannot be done, rather than what can be done. What is needed is legislation that will encourage signage in downtown.

No comments were received on the subject of signs. For this reason, while the policy should be adopted, it is not necessary to place a high priority on its implementation.

LAND USE

The two land uses for which there is a continuing need to maintain objectives and policies are retail and residential. The development of the Cornwall Centre has substantially altered the retail shopping patterns in the downtown, and at the same time, has resulted in the development of new residential units.

Retail Uses

The two policies which were recommended in the October 1983 report and that relate to retail use were as follows:

> *"That a retail area, within which retail stores shall be provided at street level, be defined."*

> *"That within the defined retail area a continuity of shop windows, displaying goods for sale, be maintained."*

Action has followed from these recommendations insofar as the retail area has been defined and is included to form an integral part of the zoning controls. The zoning is so written that where retail use, at ground level, is proposed as part of a permit application it may be treated as a "permitted use" and quick approval will result. However, where a developer wishes to provide non-retail uses, at ground level, then the permit application is treated as a "discretionary use" and it must be referred to City Council. Council may, in its discretion, waive all or part of the retail requirement having regard for the general intent of the above policy recommendations. This intent is described in the design quidelines which form part of the zoning. An incentive is provided to developers of new buildings in that, in the retail area, retail floor space need not be counted as part of the allowable floor area (f.a.r.). This incentive applies to second level shopping space

provided that access is provided directly to the street or other pedestrian areas. This provision is intended to be compatible with the long term objective of making provision for a future +15 pedway system. There will undoubtedly be some difficulty in determining, at the permit stage, what is and is not retail floor space. Judgement will be needed.

There are at present a number of vacant stores in the prime retail area. As major developments now under construction are completed the demand will rise. As in 1979 the greatest threat to the expansion of downtown retailing will be any rapid expansion of suburban shopping centres. It continues to be City policy to limit subruban retail expansion. The policy, reaffirmed by City Council on March 19, 1984 is:

"That a minimum of a one year hold be placed upon future D.S.T.M. (Department Store Type Merchandise) expansion in the City;"

With the above policy in effect and with the requirements of the zoning controls, there is no need for a further policy for retail use. The situation will need to be monitored on a continuing basis.

Residential Uses

The following policy was recommended in the October 1983 report and is brought forward without change:

(w) THAT EVERY ENCOURAGEMENT, THROUGH ZONING AND OTHER POLICIES, BE GIVEN TO THE DEVELOPMENT OF RESIDENTIAL UNITS IN THE DOWNTOWN, PARTICULARLY ON PROPERTIES BETWEEN VICTORIA AND 13TH AVENUES.

The residential population of the downtown and the surrounding Inner-City neighbourhoods has been declining for many years but is unlikely to decline further. The few remaining residential buildings, including the Balfour, the Frontenac and the Huntington apartments are sound structures with high levels of occupancy. The recently completed residential apartment tower in the Cornwall Centre is available for occupancy. This building, constructed by the Saskatchewan Housing Authority, with its 154 units, could more than double the downtown population count. The Saskatchewan Housing Authority has other land holdings in downtown suitable for residential development.

Encouraging the private sector to become active in the construction of downtown residential accommodation is not going to be easy. This problem goes well beyond the boundaries of the downtown for there has been very little private sector involvement in residential development throughout the Inner-City neighbourhoods. Again it is the Saskatchewan Housing Authority that has been active in the Cathedral, Transitional, Hospital, Victoria East and Albert-Scott neighbourhoods.

It is possible to introduce zoning incentives to encourage residential development. The proposed zoning includes, for that part of downtown that lies between the lane south of Victoria Avenue and 13th Avenue, a form of residential bonus zoning. The principle involved is that a small commercial development is permitted (f.a.r. 1.00). If a developer wishes to construct additional commercial floor area, over and above that basic f.a.r. then he must provide an amount of residential floor area equal to the additional commercial floor area. This would result in mixed use developments similar to, but not the same as, 2001 Cornwall Street. 100% Residential developments are permitted. The proposed extension of the Hotel Saskatchewan would meet the criteria of this bonus zoning system. The same principle could be applied to other parts of downtown. At this time it seems unlikely that the development community would respond to such an option positively.

Hotel accomodation can be considered as residential. It can be argued that since the purpose behind the encouragement of residential development is to increase the number of people living downtown, and, since hotels provide accommodation for people to live downtown, albeit temporarily, then the objective is achieved. In the traditional zoning sense, hotels are commercial operations and are seen as being different from residential apartments. However, an apartment building is also commercial development, particularly when the units are rented. In downtown, hotels should be considered as a residential use.

HERITAGE

The following policy was recommended in the October 1983 report:

> *dd) "that the report "Heritage Program for the Downtown" dated July 1983, be forwarded to the Municipal Heritage Advisory Committee (M.H.A.C.) for their consideration and report back to City Council."*

The action arising from this recommendation has occurred. The report was circulated to a number of interested groups and associations for their comments, following a meeting of the M.H.A.C. on November 2, 1983. From among the six submitted briefs on the downtown plan, only one made reference to the heritage question. The Regina Construction Association suggested that, if heritage designation were to restrict development, then the City should purchase heritage buildings.

There is a polarity of positions taken in various groups in the community. This difference came into focus when, in order to accommodate a new multi-storey office tower, it was necessary to demolish the old McCallum Hill building. Those persons and groups interested in the preservation of the City's heritage succeeded in delaying the demolition, through legal and other actions, for over a

year. Other conflicts had occurred in the past. It will be important, over the coming years to bring these two opposing forces together and have them, and the City, working toward a common goal.

Having received such comments as were forthcoming, following the review process, on February 2, 1984 the M.H.A.C. approved the recommendations, policies and guidelines in the downtown heritage report. City Council reaffirmed these decisions on February 6, 1984. Since the report entitled "A Heritage Program for the Downtown" has been approved by City Council it represents the policy of the City. The following is therefore the policy for the downtown area:

(x) "THAT IN MATTERS RELATING TO HERITAGE SITES AND BUILDINGS IN THE DOWNTOWN REFERENCE SHOULD BE MADE TO THE REPORT "A HERITAGE PROGRAM FOR THE DOWNTOWN" DATED OCTOBER, 1983 FOR DETAILED INFORMATION ON POLICIES, DESIGN GUIDELINES AND SPECIFIC BUILDINGS IDENTIFIED AS HAVING HERITAGE MERIT.

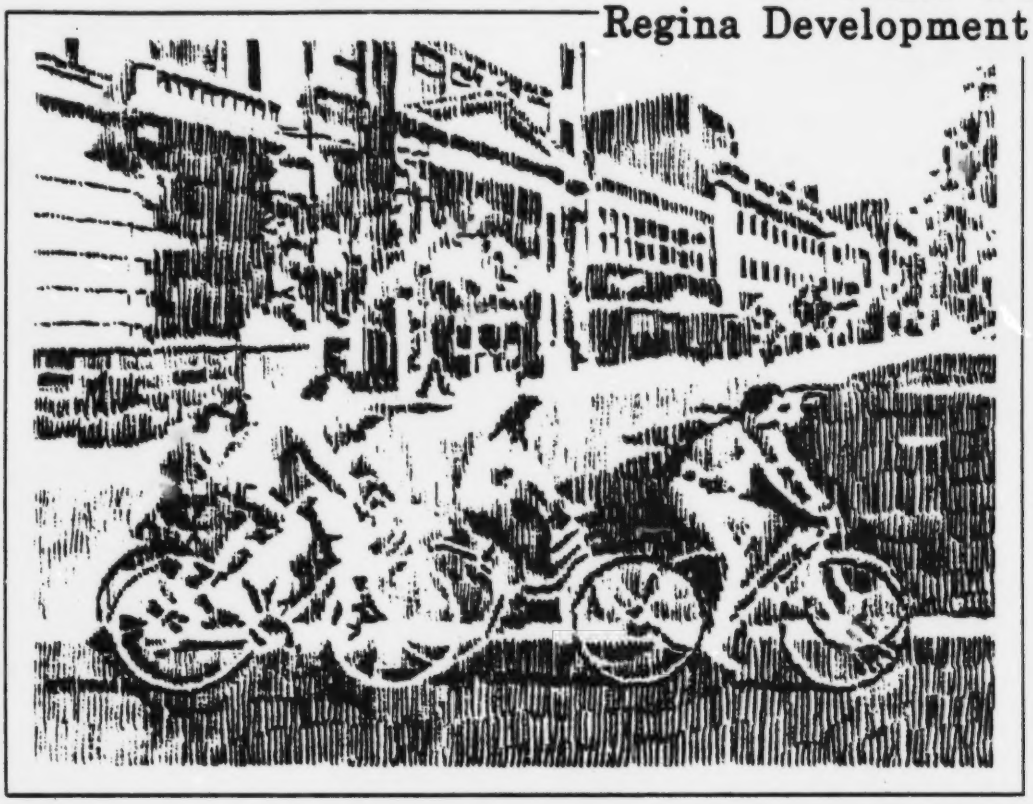
APPENDICES.

A. Bicycle Study
dated October, 1982

B. Pedestrian Level Wind Study
dated July, 1982

C. A Heritage Program for the Downtown
approved February, 1984

APPENDIX A
to PART G of the
Regina Development Plan.



BICYCLE TRANSPORTATION IN DOWNTOWN REGINA

PLANNING DEPARTMENT
CITY OF REGINA
OCTOBER 1982

BICYCLE TRANSPORTATION IN DOWNTOWN REGINA

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BICYCLE STUDY

As a result of Council's September 7, 1982 motion that the City of Regina undertake to develop a bicycle transportation plan, the following bicycle study has been prepared for consideration and approval. The need for such a study emerges from a growing awareness that alternatives to the private automobile such as the bicycle have not been adequately accommodated in the city's existing transportation system, which caters almost exclusively to the needs of the private automobile The increasing dominance of the automobile will exacerbate and not alleviate the problems of air and noise pollution traffic congestion and excessive energy consumption associated with its use. Most alternative transportation modes that are non-polluting and non-energy consuming have not proved economically feasibile at this time and thus have not been fully explored. However, the bicycle is one alternative which is readily available to fulfill the need for this type of urban transport. This study has, therefore, concentrated on the feasibility of integrating the bicycle into Regina's transportation system.

A number of policy recommendations have been formulated which should help to encourage greater utilitarian bicycle usage, and thus assist, albeit in a small way, to create a more pleasant downtown environment. Some of these recommendations, which are outlined at the conclusion of this report, will require further review and consultation with the affected Civic Departments with regard to their feasibility and potential impact on local traffic flows. Before proceeding with a discussion of these recommendation, it will be necessary to review the City's existing bicycle planning policies, to formulate goals and objectives for the study, to explain the method of analysis, and to outline possible alternative courses of action that could be pursued to achieve these goals and objectives.

Existing Policies:

The Municipal Development Plan contains a policy objective that the City should provide transportation alternatives aside from the automobile, particularly in the downtown. Aside from the development of a public transit strategy, little has been done to encourage alternative transportation modes such as the bicycle. The following is a summary of the actions or proposed actions which have been undertaken to date.

(1) The Devonian bicycle path has been developed along Wascana Creek from Albert Street to Grassick Park at Dewdney Avenue. Recently it was announced that the path would be extended through A. E. Wilson Park. However, this path primarily serves the needs of recreational cyclists and is too circuitous to be of much use to commuter cyclists who generally prefer the most direct and shortest route to their destination.

(2) Additional bicycle racks have been installed in the Scarth Street Mall, at the library, and at City Hall in a response to an outcry from cyclists in 1981 when their bicycles were impounded because they were chained to City property. However, these racks do not provide a desired level of security for long-term parking and can bend delicate ten-speed bicycle wheels. As well, other private areas of the downtown require additional parking facilities.

(3) The possibility of including a bicycle lane in the proposed Saskatchewan Drive, Arcola Avenue/Glenavon Expressway has been explored. However, a detailed study of the feasibility and impact of this action has not been undertaken at this time.

Further, the study has identified a number of other issues which have not been adequately addressed by existing City policies. From a survey of bicyclists in the downtown conducted this summer it is apparent that these concerns detailed below act as effective deterrents to increased bicycle use in the City.

(1) The existing roadway system is designed to accommodate the needs of motorized vehicles and not to accommodate other modes such as the bicycle.

(2) Conflicts between bicycle and vehicular traffic are aggravated by a lack of respect for the rules of the road on the part of both motorists and cyclists.

(3) The existing road maintenance program does not specifically relate to the needs of cyclists which results in hazarous riding conditions.

Formulation of Goals and Objectives:

The basic goals of the study can be summarized as follows:

(1) To encourage greater utilitarian bicycle usage in order to reduce the dependence on the automobile as the dominant transportation mode.

(2) To integrate the bicycle into the existing transportation system.

(3) To increase the safety of cycling in the City.

In order to achieve these goals, the following objectives of the study have been proposed:

(1) Engineering and maintenance improvements to the existing roadway network to increase cyclist safety.

(2) The inclusion of bicycle travel in the design of new roadways.

(3) Provisions of increased and more secure bicycle parking facilities in the downtown as required.

(4) Improvement of educational and enforcement programs to increase the awareness of cyclists as legitimate road users.

(5) A promotional campaign by the City to encourage utilitarian cycling.

(6) The creation of a permanent public forum where bicycle planning proposals can be discussed and evaluated and recommendation forwarded to City Council for consideration.

Method of Analysis:

In this study the following method of analysis was employed:

(a) Information and reports on bicycle planning were obtained from a number of American and Canadian cities which have active planning programs. This information, both of a historical and state-of-the-art nature, was invaluable in the formulation of policy recommendations reflecting the latest ideas and concepts in this rapidly evolving field of planning.

(b) A field survey of existing downtown parking facilities. What became evident from this survey is that certain downtown areas, expecially the Cornwall Centre, had inadequate parking facilities to accommodate the demand for same.

(c) A questionnaire sampling the views of downtown cyclists. A separate report has been prepared analyzing the results of the questionnaire.

Evaluation of Alternatives:

Three basic alternative planning strategies to encourage greater usage were identified in the course of the study. In brief, the three alternatives can be summarized as:

(1) A "do-nothing" approach

(2) An extensive bikeway system approach

(3) A comprehensive bicycle planning strategy approach.

(1) "Do-nothing Approach"

The first approach would be to do nothing more than what has been done under existing City policy to encourage greater usage. The rationale for this approach is based on a belief that the bicycle is an insignificant alternative which is limited to two or three summer months, and which has little attraction for the vast majority of commuters. However, this approach is unacceptable for a number of reasons. First, utilitarian cycling has been increasing, albeit it at a moderate rate, due mainly to a growing awareness of the bicycle's unique advantages as a transportation mode and despite the fact that little has been done to encourage its use. Second, a transportation policy which focuses almost exclusively on the automobile will only exacerabate the congestion and other problems associated with its use. Transportation planning must incorporate and encourage all forms of transport, especially those that are energy-conserving and pollution-free, in order to create a balanced system which recognizes the needs of all. Third, with increasing bicycle usage, accidents will also inevitably increase unless appropriate programs are implemented to counteract this scenario. Finally, the very real advantages the bicycle transportation offers a City in terms of reduced congestion and pollution and increased road

and parking capacity cannot be considered as unimportant and must be taken into account in the urban transportation system. The bicycling season in fact can be extended to as long as seven months of the year if proper clothing is worn and road conditions are good.

(2) An Extensive Bikeway System Approach

The second alternative is to develop an extensive system of bikeways which separate bicycle and vehicular traffic. This approach, once considered the optimum method of planning for the bicycle, is now generally viewed as an impractical and costly way of encouraging safer cycling. Most cities, including Regina, simply do not have sufficient space for such systems. As well, the costs (upwards of $50,000 per mile for separate bike paths) are difficult to justify for a system which will not be used for the entire year. Furthermore, recent accident studies have revealed that bicycle paths may not be any safer, in fact may be less safe than using the existing roadways. Finally, unless almost every street had an alternative bikeway the diffused commuting patterns of utilitarian cyclists would not be adequately met by such a system.

(3) A Comprehensive Bicycle Planning Strategy Approach

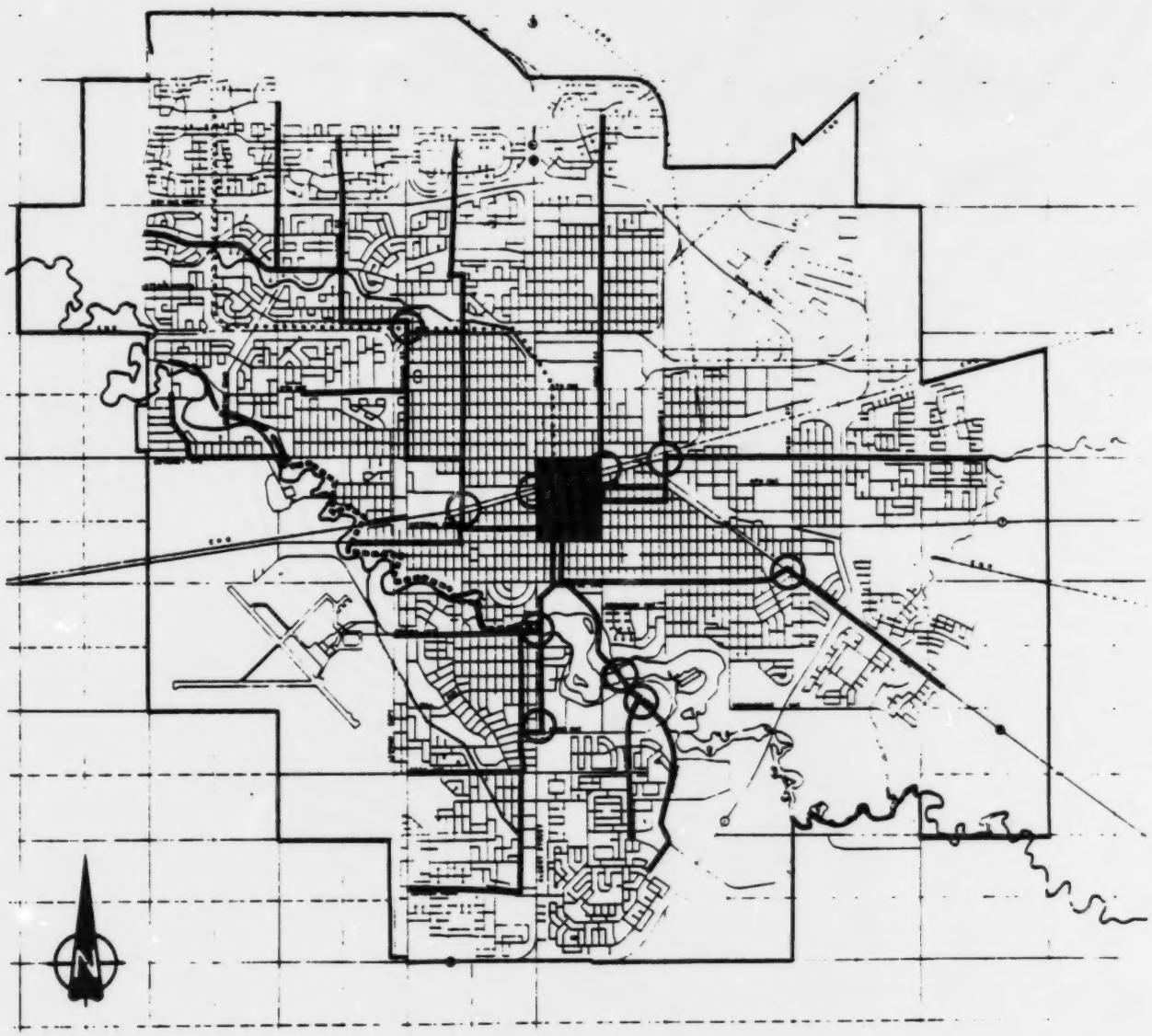
Of the three alternatives proposed, the comprehensive bicycle planning strategy is seen as the most appropriate method of facilitating increased utilitarian bicycle usage in the City. Since this alternative recognizes the need for a multi-faceted approach to bicycle planning, it will ensure that relevant factors are taken into consideration in the formulation of the planning strategy. Further, this strategy is based on the principle that the bicycle can be safely integrated into the existing urban transportation system without the need of an extensive system of bikepaths. The policy recommendations for the strategy are derived from the four "E" concept developed by Geelong, Australia and later adopted by Portland, Oregon, and Vancouver.

The four "E" approach consists of Engineering, Education, Enforcement, and Encouragement programs which interact and reinforce each other to fulfill the objectives of the strategy. Under the Engineering program existing roadways are modified where possible to accommodate the safe passage of automobiles and cyclists. Education and Enforcement programs are used to develop increased awareness of bicycle safety, rights, and obligations. Finally an Encouragement program is proposed to promote the concept of utilitarian cycling and ensure that adequate storage facilities are provided to satisfy the needs of cyclists.

Taking the above approach into consideration, Figure 1 illustrates a suggested bicycle route network linking the downtown with the suburban areas of the City. For the most part existing roadways were used to develop the proposed routes. Selection of these routes was based on the findings of a number of cities with bicycle transportation plans as well as the survey of Regina cyclists which accompanies this report. From these findings it would

FIGURE 1

SUGGESTED BICYCLE ROUTES TO AND FROM THE DOWNTOWN



SUGGESTED ROUTES
DEVONIAN BICYCLE PATH
(Proposed Extension)
POSSIBLE COMBINED BICYCLE/BUS ROUTE
SQUEEZE POINTS (bridges, subways, intersections requiring extra caution)

appear that the major concern of the utilitarian cyclist is to reach his destination by the most direct, convenient, and safest route possible. Yet, in most cases only arterial and major collector streets, with their heavier traffic volumes, provide the desired direct links. As a result these types of streets form the bulk of the suggested routes. Since safety factors must also be considered, the implementation of a bicycle transportation plan based on the 4 "E" approach described above becomes imperative if the level of utilitarian cycling activity is to be increased with no increase or even a decrease in the number of accidents.

Where possible, the suggested routes also incorporate less heavily travelled streets which parallel arterial roadways for a considerable distance (ie. Rae and Albert Streets), as well as roads and paved pathways that provide a direct link between arterial streets (ie. Wascana Centre roads and the Devonean Bicycle Path). A future possible combined bike/express bus route from the Northwest Sector to the downtown is also shown. In addition, the potential development of a pedestrian mall on Cornwall Street in the Transitional Area could provide a future link in the above system. Such alternatives to the major road network may be of some assistance to beginning cyclists who wish to develop their riding skills in an environment with limited or no vehicular traffic.

The inclusion of a bicycle route system as proposed in this report is not intended to suggest that other roadways could not equally be used by the utilitarian cyclist. Ultimately each cyclist must develop a personal commuter route based on his place of origin and destination and such factors as time, convenience, riding skills and safety.

With regard to the latter concern, Figure 1 also shows "squeeze points", including bridges, subways and difficult intersections where extra caution upon the part of the cyclist is needed to navigate those potential obstacles safety. Modifying squeeze points is just one of a number of proposed engineering improvements to the existing road network outlined below which will assist in making cycling a safer and more convenient activity. If a priority system has to be established for the implementation of these engineering improvement recommendations, perhaps the first priority should be given to the routes designated in Figure 1 as well as the streets on the Transitional Area since they provide the major links to the downtown.

Policy Recommendations

The implementation of a bicycle plan for Regina should be based on the following policy recommendations.

(1) Engineering

a) Traffic lanes on arterial and collector streets should be re-marked where possible to create a wider curb lane to accommodate bicycle and automobile travel. The recommended minimum curb lane width is 12' on multi-lane roads and 14' on two lane roads. Where parallel parking is permitted adjacent to a 12' traffic lane, the parking lane should be a minimum of 10' in width to allow for safe bicycle clearance.

b) Squeeze points which make cycling hazardous should be eliminated or modified where possible. Prime candidates include the Albert and Broad Street underpasses, which may be reconstructed at some time in the future.

(3) The removal of parking on arterial streets should be investigated.

(4) The street maintenance and resurfacing programs should be upgraded to keep major streets free of potholes, debris, broken glass, and other items which create hazards for cyclists.

(5) Warning signs should be placed where appropriate to advise cyclists of particular hazards that may exist.

(6) A bicycle path should be incorporated in the plans for an exclusive busway running from the Northwest Sector to the downtown and in the proposed busway from the southeast along Arcola Avenue.

(7) The establishment of any new pedestrian malls should provide sufficient space for the passage of bicycles.

Education

(8) The two existing City safety officers should have the responsibility of co-ordination of bicycle education programs for all age groups. These programs should include on-the-road training in actual traffic conditions.

(9) The provincial government should be lobbied to include bicycle awareness in driver education and testing programs.

(10) Special bicycle planning training should be provided for specific civic personnel to ensure that the necessary expertise is available to implement the plan's objectives.

Enforcement

(11) In consultation with the Police Department, increased emphasis should be established to monitor and enforce violations of traffic laws on the part of both motorists and cyclists. This should, if possible, include creation of a Police Safety Team.

(12) Bicycle license fees should be raised from the existing $3 to $5 per license with the funds earmarked for facilities improvement. The requirement for a license should be more strictly enforced and probably will be more voluntarily complied with if cyclists know the fees are helping to fund bicycling improvements However, the increase in fees should not be too substantial if the cooperation of cyclists is to be achieved. Thus, a modest $2 increase has been proposed.

(13) The City should revise the Traffic Bylaw to clarify and upgrade the legal status of the bicycle and its legitimate right to use the roadways.

Encouragement

(14) The City should adopt a "pro-bike" policy in order to demonstrate leadership in this area. An annual bicycle-to-work day or week could be implemented with local prominent citizens riding to work accompanied by appropriate media publicity.

(15) The City could adopt a policy to reimburse employees who use their bicycles on City business similar to a scheme in operation in Palo Alto, California.

(16) The Zoning Bylaw should be amended to include requirements for downtown businesses to provide secure and convenient bicycle parking facilities, at approximately ten per cent of automobile parking.

(17) The City should upgrade the existing bicycle stands with more secure and convenient facilities.

(18) Existing downtown businesses and office buildings should be lobbied to provide appropriate bicycle parking facilities where required.

Implementation Strategy

Implementation of a bicycle plan in conjunction with the downtown plan would be staged over a five year period. By that time safety should have improved and sufficient facilities been provided to accommodate increased bicycle usage. Bicycle planning would of course continue after the initial five year period as additional redevelopment takes place in the downtown and other areas of the City. Maintenance of existing roadways is also an ongoing procedure.

The three basic components of the implementation strategy are as follows:

(1) Prior to the implementation of these recommendation it will be necessary to undertake an extensive survey of bicycle volumes in the City, especially those entering the downtown. A subsequent survey to determine the current level of usage should be conducted once the majority of the proposed improvements have been in operation to measure any increase in cycling activity and to assess how cyclists and motorists are responding to these facilities.

(2) A bicycle advisory committee consisting of members of the City Police, Planning Department, Public Works and Engineering Department, Parks and Recreation Department, the School Boards, Wascana Centre Authority, local businessman and members of the general public interested in cycling should be established. This committee would review the recommendations of this study, make recommendations with regard to implementation of the Policy Recommendations, and submit annual requests for funding for implementation of bicycling improvements.

(3) The annual budget for bicycling improvements could be partly funded from bicycle license fees. In addition, the City should also contribute a portion of the annual budget to demonstrate its

willingness to help encourage cycling. As well, the provincial government should be lobbied to contribute to the funding of bicycle planning programs in Saskatchewan cities.

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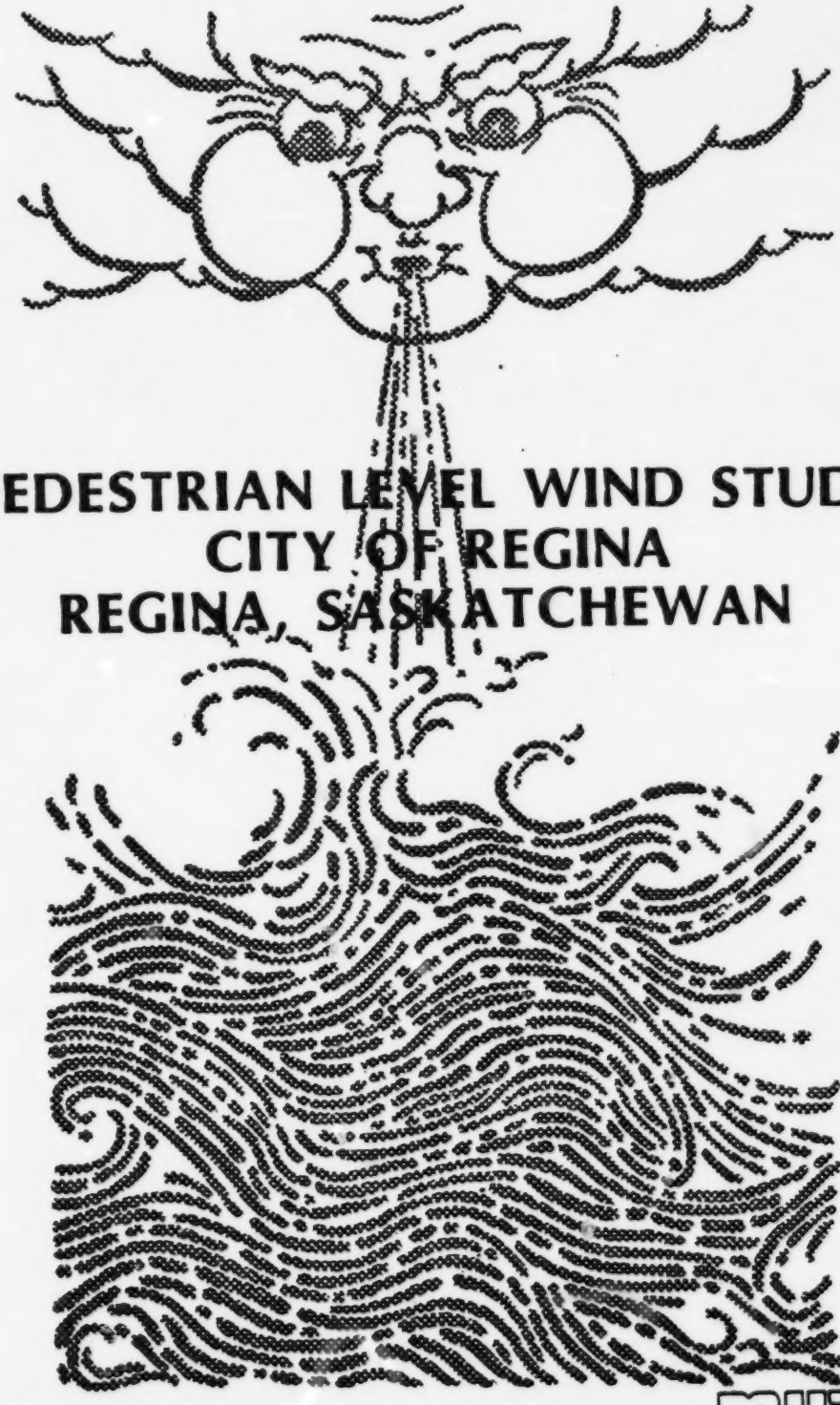
APPENDIX B
to PART G of the
Regina Development Plan.



PEDESTRIAN LEVEL WIND STUDY
CITY OF REGINA
REGINA, SASKATCHEWAN

REPORT 5821291
JULY 7, 1982

MTR
CONSULTANTS
EDMONTON

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1.0 INTRODUCTION

Morrison, Hershfield, Theakston & Rowan Limited (MHTR Ltd.) was retained by the City of Regina to conduct a pedestrian level wind study on the downtown area of the City of Regina. The objective of the study was to evaluate the existing wind environment in the downtown area and to determine the effects of several proposed developments. A description of the causes of adverse wind conditions and potential remedial solutions have been included in Appendix B.

2.0 PEDESTRIAN LEVEL WIND STUDY

2.1 General Discussion

A 1:500 scale model of the downtown area of the City of Regina, as shown in Figure 1, centred on Cornwall Street midway between Eleventh and Twelfth Avenues was constructed and included all buildings within a 575 metre radius of this centre. The model was instrumented with wind velocity sensors at 92 strategic locations around the downtown area. The model was constructed and built in accordance with downtown plans and photographs received at our office on March 16th, 1982, and included all design features likely to affect the wind flows at the pedestrian level.

During the course of our investigations, a visit to our Edmonton laboratory was made by Mr. Peter Davies and Mr. Om Sharma of the Regina Planning Department on June 3rd, 1982. The purpose of this visit was to demonstrate the use of our facilities and to view the results of our tests, with primary concern being the adverse wind conditions noted in the downtown area.

An open channel waterflume/wind simulator and a dye injection technique were used to visually assess the wind environment around the downtown area. The visual assessment was completed in order to choose the locations at which detailed wind speed measurements would be taken. The model was then tested in our boundary layer wind tunnel. Following these tests, a computer analysis of the test data provided information on the wind conditions around the proposed building. The results of this computer analysis were plotted with wind speed versus frequency of occurrence for each test location. These plots along with a detailed explanation of the computer analysis and the subsequent interpretation of the comfort criteria plots has been included in Appendix A. The location of the points at which wind speeds were measured are shown on Drawing 5821291 which is included in the pocket at the end of the report.

Two different configurations were examined during the testing. The first configuration was the downtown area as it presently exists, and the second configuration included the proposed Lorne Street Square Development at Eleventh Avenue and Lorne Street; the Bank of Montreal Building at the northwest end of Scarth Street Mall, the McCallum Hill Building at the southwest end of the Scarth Street Mall, and a building at the southeast end of the Scarth Street Mall. These buildings are shown on Drawing 5821291. The above-mentioned buildings were modelled according to drawings received December 11th, 1981. The building at the southeast end of the Scarth Street Mall was arbitrarily chosen to have the approximate dimensions of the Lorne Street Square Development for convenience and to show the effect of a building on this site.

The wind directions examined during this study were in decreasing order of frequency of importance: southeast, northwest, west-northwest, west, east-southeast, north-northwest and south-southeast. The above directions are based on wind measurements recorded at the Regina Airport over a 10 year period from 1957 to 1966. A wind rose showing the frequency and mean speed versus direction for Regina has been included in Figure 2. The sections which follow contain the details of our assessment of the pedestrian level wind environment in the downtown area of the City of Regina. In addition, appendices have been included to describe the basic principles of wind engineering (Appendix B) and guidelines for undertaking pedestrian level wind studies (Appendix C) in order to identify potential problems and to find satisfactory solutions to them.

2.2 Detailed Analysis of Test Results

2.2.1 Scarth Street Mall

The Scarth Street Pedestrian Mall in downtown Regina is the focus of pedestrian traffic in the city centre and therefore the level of wind activity is very important. In general, the Mall experienced a pedestrian wind environment which was comfortable for lounging for the summer season and comfortable for walking in the winter.

Point location 1 (Drawing 5821291) on Eleventh Avenue west of the Mall was subject to uncomfortable winter wind conditions at least once per week. Uncomfortable conditions were caused by winds which approach from the north-northwest unobstructed by the presence of any tall structures upwind.

Locations 2 through 6, located on Eleventh Avenue, at the north end of the Mall, experienced comfortable wind conditions suitable for lounging in the summer season, and

for standing in the winter. The addition of the proposed Bank of Montreal Tower at the corner of Eleventh Avenue and Scarth Street, raised the level of wind activity at location 3 due to the effect of prevailing southeast winds, and at location 6 as a result of east-southeast winds. However, these points remained comfortable for walking in the summer, but were uncomfortable for walking throughout the winter.

It was determined that the location of the proposed elevated walkway from the Bank of Montreal Building across Eleventh Avenue to the Canada Permanent Trust Building was critical to the local wind environment. Locating the pedestrian walkway at the northwest corner of the building increased wind activity beneath the bridge (location 1) for winds from the west. This increased wind activity was restricted to the area beneath the walkway, and the walkway had no effect on the wind environment in the Scarth Street Mall. The walkway was then relocated to the northeast corner of the Bank of Montreal Building and flows were re-examined in the waterflume. Wind activity was increased both under the relocated walkway (location 3) and in the Scarth Street Mall (locations 6 and 7). It is therefore recommended that the elevated walkway be located at the northwest corner of the proposed Bank of Montreal Tower.

On the Scarth Street Mall itself, locations 7 and 8, in the northern third of the Mall, were comfortable for both seasons, but were subject to significant increases when the proposed Bank of Montreal Building was placed on site. Point location 8 experienced the greatest change such that conditions became uncomfortable for walking occasionally during the summer and at least once per week in the winter. The unpleasant conditions were created by strong north-northwest wind flows that were channelled down the north face of the building and around the corner into the Mall.

Midway down the Scarth Street Mall, points 9 and 11 experienced a comfortable wind environment and were not significantly affected by the addition of the Bank of Montreal Building or the proposed McCallum Hill Building. Although conditions at point location 10, halfway down the mall, deteriorated with the presence of the additional building, conditions were still comfortable for walking in the summer. However, uncomfortable conditions for walking occurred in the winter. Southeast winds were downwashed from the face of the proposed McCallum Hill Building increasing street level flows in the Mall.

Point locations 12 through 15, at the south end of the Mall, experienced conditions which were comfortable for pedestrian activity in both the winter and summer seasons under the existing conditions. The addition of the proposed McCallum Hill Building, as well as

a building across the Mall, increased levels of wind activity for points 12 through 15. Although conditions remained comfortable for walking in the summer, winter conditions were made uncomfortable for walking at least once per week.

Point location 16, at the corner of Twelfth Avenue and Scarth Street, at the northeast edge of Victoria Park, experienced conditions comfortable for standing in summer and walking in winter under the existing conditions. A slight increase of wind activity was noted for both seasons with the introduction of the McCallum Hill Building. This increase was noted when winds were from the north-northwest. Directly across Scarth Street at point location 17, conditions were similar to point 16, however, no significant changes in the level of wind activity were noted when the McCallum Hill Building was introduced.

2.2.2 Hamilton Street

The wind activity along Hamilton Street was examined since it is an important pedestrian route. Generally, pedestrian level wind activity on Hamilton Street was higher than that found on the Scarth Street Mall. These higher levels of wind activity were due to the presence of taller buildings on the east side of Hamilton Street. Prevailing winds from the northwest quadrant hit these buildings and were forced down to pedestrian level. The addition of the proposed buildings on the Scarth Street Mall had no effect on Hamilton Street.

Wind from the southeast primarily contributed to the local wind environment at points 18 and 19 north of Eleventh Avenue. Point 18 was subject to uncomfortable conditions for walking of more than once per week for the winter season, whereas during the summer season, it experienced uncomfortable conditions for walking only once a month. Point location 19 was suitable for walking throughout the year.

At the intersection of Eleventh Avenue and Hamilton Street, points 20, 22 and 23 experienced a wind environment suitable for standing throughout most of the summer. During the winter season, conditions were more severe, occasionally displaying uncomfortable conditions for walking. Point location 21 was generally comfortable for walking throughout the summer season, however, northwest winter winds were severe at this location and created uncomfortable conditions for pedestrian use throughout the winter.

Points 24 and 25, along Hamilton Street between Eleventh and Twelfth Avenues, were pleasant for standing throughout most of the summer. This area was comfortable for walking during the winter.

Measurements recorded at locations 26 and 28 indicated a slight reduction in the level of wind activity with the introduction of the McCallum Hill Building, due to upwind protection from winds approaching from the northwest sector. Conditions at these points were comfortable for walking in the summer, but uncomfortable throughout the winter.

Locations 27, 29, 30 and 31, along Hamilton Street south of Twelfth Avenue, were subject to high velocity winds predominately from the west-northwest direction. These points were uncomfortable for walking much of the summer season and continuously uncomfortable for walking in the winter season.

2.2.3 Victoria Avenue

Victoria Avenue lies on the southern edge of the downtown area. It supports a moderate level of pedestrian activity due to the presence of the park immediately north of the street between Lorne and Scarth Streets. Point locations on Victoria Avenue between Cornwall Street and Hamilton Street, (locations 32 through 38 inclusive), experienced significant levels of wind activity. This area was not affected by the addition of the proposed developments.

Several points along Victoria Avenue were found to be uncomfortable for walking approximately once per week during the summer, and uncomfortable for walking throughout the winter. The area around the water fountain for the Saskatchewan Power Corporation Building (location 37) experienced uncomfortable conditions for walking once per week during the summer. The high level of wind activity observed explains why this fountain can only be used intermittently.

2.2.4 Victoria Park

Victoria Park occupies one city block in the southern section of downtown Regina. With the information supplied to us, it was not possible to accurately model the existing landscaping within the park. Therefore, the results of the study do not reflect the level of protection afforded by the trees and bushes in the park, particularly in the summer.

Regions within the centre of the park (locations 43, 44, 45 and 48) experienced conditions comfortable for walking in the summer, without accounting for landscaping. Conditions within the park would be suitable for lounging in several locations due to the presence of the existing landscaping. Conditions were suitable for walking throughout most of the winter.

The area around the perimeter of the park (locations 32, 39, 40, 46 and 49) experienced comfortable conditions for walking throughout most of the summer, however, conditions were uncomfortable for walking in the winter along Victoria Avenue.

2.2.5 City Hall

City Hall was examined since the plaza in front of it is know to experience uncomfortable winds. The area immediately in front of and to the east of the City Hall (point locations 50 to 53) experienced the highest levels of wind activity that were recorded in the City. This area experienced wind levels above the comfort criteria standard for occasional walking throughout the year and was influenced predominantly by winds from the northwest and west-northwest.

Locations 51 and 53 experienced extremely high levels of pedestrian wind activity. These areas were uncomfortable for pedestrian use at all times of the year, and experienced levels of wind activity dangerous to pedestrians on a monthly basis throughout the winter. The strong winds in this region were caused by undisturbed winds from the northwest quadrant being accelerated around the City Hall Building and drawn down to the plaza level.

The entrance to City Hall, location 52, was sheltered by the City Hall podium and thus experienced levels of wind activity lower than those points measured in the open space in front of the City Hall (location 51). The entrance experienced conditions uncomfortable for walking at least once per month during the summer and once per week during the winter.

Location 54, to the east of the City Hall, experienced acceptable levels of wind activity for walking in the summer, however, the level of wind activity was unacceptable at least once per week in the winter.

2.2.6 Twelfth Avenue

Twelfth Avenue was studied since it passes through the centre of the city, and thus supports pedestrian traffic. Twelfth Avenue between Smith and Cornwall Streets was influenced predominantly by winds from the northwest and experienced high levels of wind activity due to a lack of large structures upwind to provide protection from the prevailing winds.

The level of wind activity experienced was uncomfortable for walking between Smith and Lorne Streets for most of the winter. Some areas (locations 57, 59 and 62) also experienced unacceptable conditions on a weekly basis during the summer. Further to the east, at Cornwall Street (locations 63 and 64), conditions were comfortable for walking throughout the year. Location 64 was adversely affected by the addition of the McCallum Hill Building, but wind conditions remained acceptable.

2.2.7 Eleventh Avenue and Lorne Street

The intersection of Eleventh Avenue and Lorne Street is the location of the Saskatchewan Government Insurance (S.G.I.) Building which is currently the tallest structure in the city. The proposed Lorne Street Square Development will also be located at this intersection. This area was examined due to the presence of the above-mentioned buildings, to determine their effect on the local pedestrian level wind environment.

The area on the south side of Eleventh Avenue, just west of Lorne Street (location 75), experienced comfortable conditions for walking throughout the year. The addition of the proposed Lorne Street Square Building actually lowered the level of wind activity at that location.

The area surrounding the intersection (locations 76, 77, 78, and 81) experienced conditions that were generally comfortable for walking throughout the summer, but uncomfortable for walking on a weekly basis during the winter. This area experienced significant increases in the level of wind activity with the introduction of the proposed Lorne Street Square Development. Conditions with the proposed building on-site were uncomfortable for walking throughout the year. Winds from the northwest quadrant were re-directed down the north face of the building to pedestrian level, causing increased wind activity.

Locations 79 and 80, on the west side of Lorne Street immediately south of Eleventh Avenue, experienced conditions comfortable for walking throughout the summer and most of the winter before the addition of the Lorne Street Square Development. The addition of the development increased wind activity in the area. Conditions remained comfortable for walking for most of the summer, however, conditions were uncomfortable for walking on a weekly basis throughout the winter.

It should be noted that, although significant wind speed increases were recorded with the addition of the proposed Lorne Street Square Development, many locations could be

improved with a detailed study of the development. Changes would include strategically placed landscaping and minor alterations to the building, such as the addition of canopies.

The northeast corner of Eleventh Avenue and Lorne Street, (locations 85 and 86), experienced high wind activity. Winds from the northwest quadrant were deflected by the west face of the S.G.I. tower down to pedestrian level and west along Eleventh Avenue. Conditions near the corner were uncomfortable for walking on a weekly basis throughout the summer and winter. Further to the east (location 84), conditions were comfortable for walking during the summer, but uncomfortable in the winter at least one day per week. The addition of the Lorne Street Square Development had no significant effect.

2.2.8 Saskatchewan Drive at Lorne Street

The area around Saskatchewan Drive and Lorne Street is on the northwest edge of the city centre and is exposed to strong winds from the northwest quadrant. This area was not protected by any significant buildings upwind and prevailing north-northwest and northwest winds created increased pedestrian level wind activity.

This region (locations 87 to 92) experienced conditions which were comfortable for walking during the summer, but frequently uncomfortable for walking throughout the winter. This region was not significantly affected by the addition of any of the four proposed developments tested.

2.2.9 Other Areas

In general, testing revealed higher levels of wind activity along streets which run east-west versus those that run north-south. The vast majority of areas not previously discussed experienced conditions that were comfortable for walking throughout the summer, although some areas experienced uncomfortable conditions for walking during the winter.

3.0 SUMMARY AND DISCUSSION

The City of Regina is subject to prevailing winds that are 30% to 50% higher than winds in other major Canadian cities, including Vancouver, Calgary, Edmonton, Toronto and Montreal. The result is a potentially uncomfortable wind environment caused by buildings of moderate height. Currently, there are relatively few tall buildings in the

city, but areas of high wind activity are present around these buildings. As development continues, there is a potential for creating an unpleasant wind environment in the downtown area.

The present study was undertaken to evaluate existing conditions in the downtown area of Regina, to determine the effects of several proposed developments and to provide guidelines for development of the downtown area to maintain the wind environment at an acceptable level. Several areas within downtown Regina were examined including the Scarth Street Mall, Hamilton Street, Eleventh Avenue, Victoria Park and City Hall.

The Scarth Street Mall currently experiences comfortable wind conditions suitable for pedestrian lounging in the summer and walking in the winter. Proposed developments at the north and south ends of the Mall will increase wind activity along the Mall unless corrective measures are taken. It is recommended that major developments in the downtown area be studied to determine their effects on the wind environment. When potential problems are identified at an early stage, corrective measures can easily be incorporated into a design. Landscaping and minor changes can be added to improve conditions after construction, but this is not as effective. With care and planning, the comfortable environment on the Scarth Street Mall can be maintained while development continues around it.

The placement of elevated pedestrian level walkways should be considered carefully since they can create localized areas of high wind activity. A walkway extending north across Eleventh Avenue from the new Bank of Montreal Building was tested in two different locations. When the walkway extended from the northeast corner of the building, it had a significant adverse effect on the wind activity at the north end of the Scarth Street Mall. By locating the walkway at the northwest corner of the building, the area of disturbance was reduced and the Mall was unaffected.

Wind activity along Hamilton Street was found to be higher than the Scarth Street Mall because of the presence of taller buildings. However, the addition of the four proposed buildings that were modelled to the west provided some protection from the northwest winds and resulted in a slight reduction of wind activity at pedestrian level. The street is currently comfortable for walking in the summer, but frequently uncomfortable in the winter. Since Hamilton Street is a major pedestrian route, care should be taken to determine the effects of any large developments on the wind environment along Hamilton Street and to take corrective action when necessary.

Eleventh Avenue experiences wind activity similar to that on Hamilton Street, i.e., comfortable for walking in the summer, but frequently uncomfortable in the winter. The intersection of Lorne Street and Eleventh Avenue was frequently uncomfortable for walking in the summer because of the existing tall tower and some locations were made less comfortable with the addition of the proposed Lorne Street Square Development. Local conditions could be improved by examining the flow conditions in detail and developing solutions in the form of minor architectural features and landscaping.

Victoria Park was shown to be comfortable for lounging in the summer and walking in the winter. Proposed developments adjacent to the park that were tested had little effect, but future projects should be examined for adverse effects on the wind environment in the park.

The plaza in front of City Hall experienced the highest levels of wind activity in the city and was uncomfortable for walking in both the winter and summer. This high wind activity was caused by undisturbed northwesterly flows that passed over the podium and around the tower and were drawn down into the plaza area. Extensive development to the northwest of the site would reduce wind levels and extensive landscaping using dense coniferous plantings and windscreens would aid in reducing wind activity in the plaza.

Future development in all areas of downtown Regina should be designed to minimize wind effects on the pedestrian environment. A description of flow characteristics around buildings and the types of solutions that can help reduce wind activity is given in Appendix B. A description of testing procedures and when they should be used to identify wind problems around proposed developments is given in Appendix C.

The City of Regina is subject to strong wind conditions and is therefore sensitive to changes in the wind environment. Existing conditions are acceptable throughout most of the downtown area, but some local areas of high wind activity are present. Careful consideration of wind in the design of future projects will help to maintain a suitable environment for pedestrians in downtown Regina.

MORRISON, HERSHFIELD, THEAKSTON & ROWAN, LIMITED

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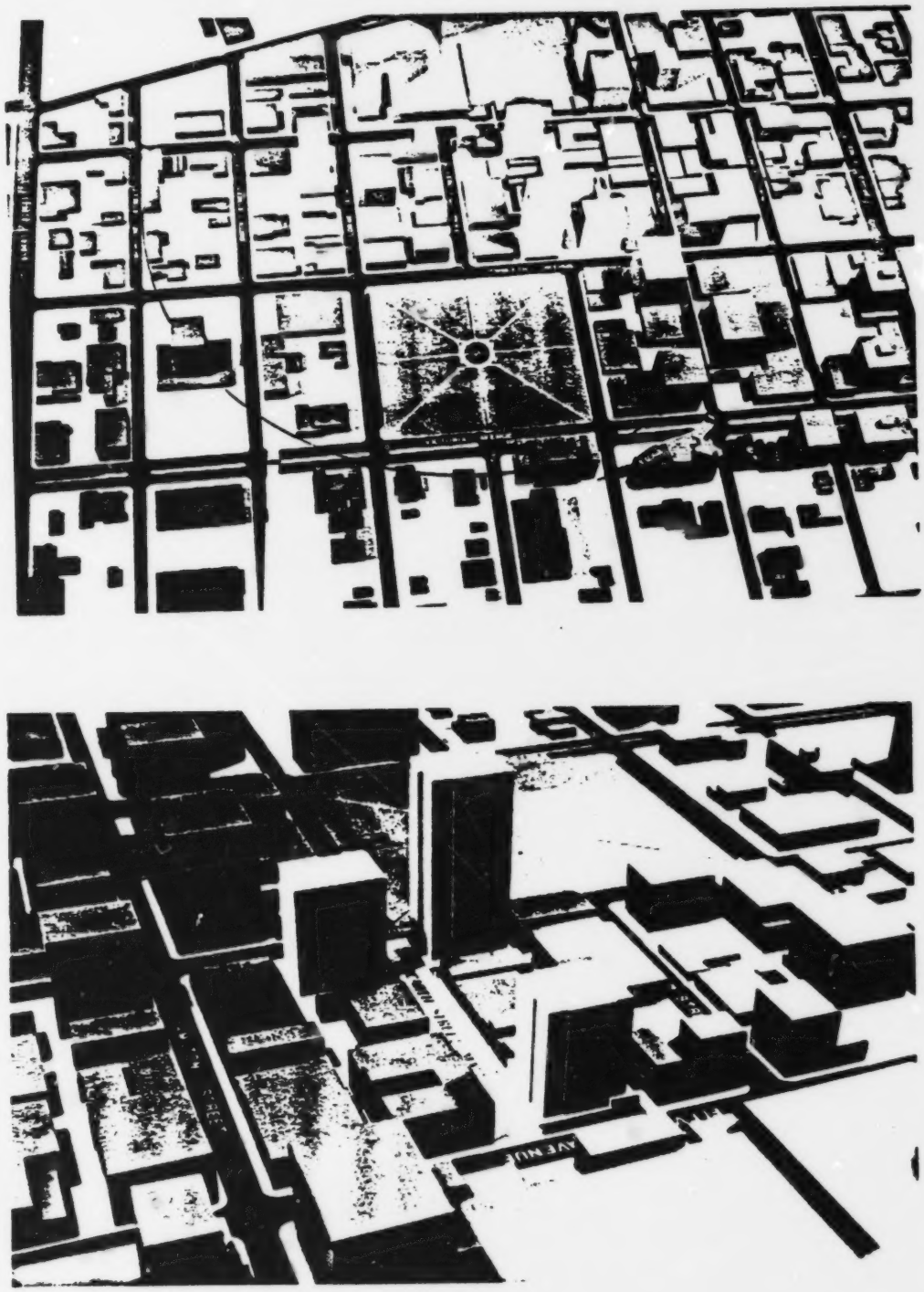


FIGURE 1
MODEL OF DOWNTOWN REGINA
INCLUDING PROPOSED DEVELOPMENTS

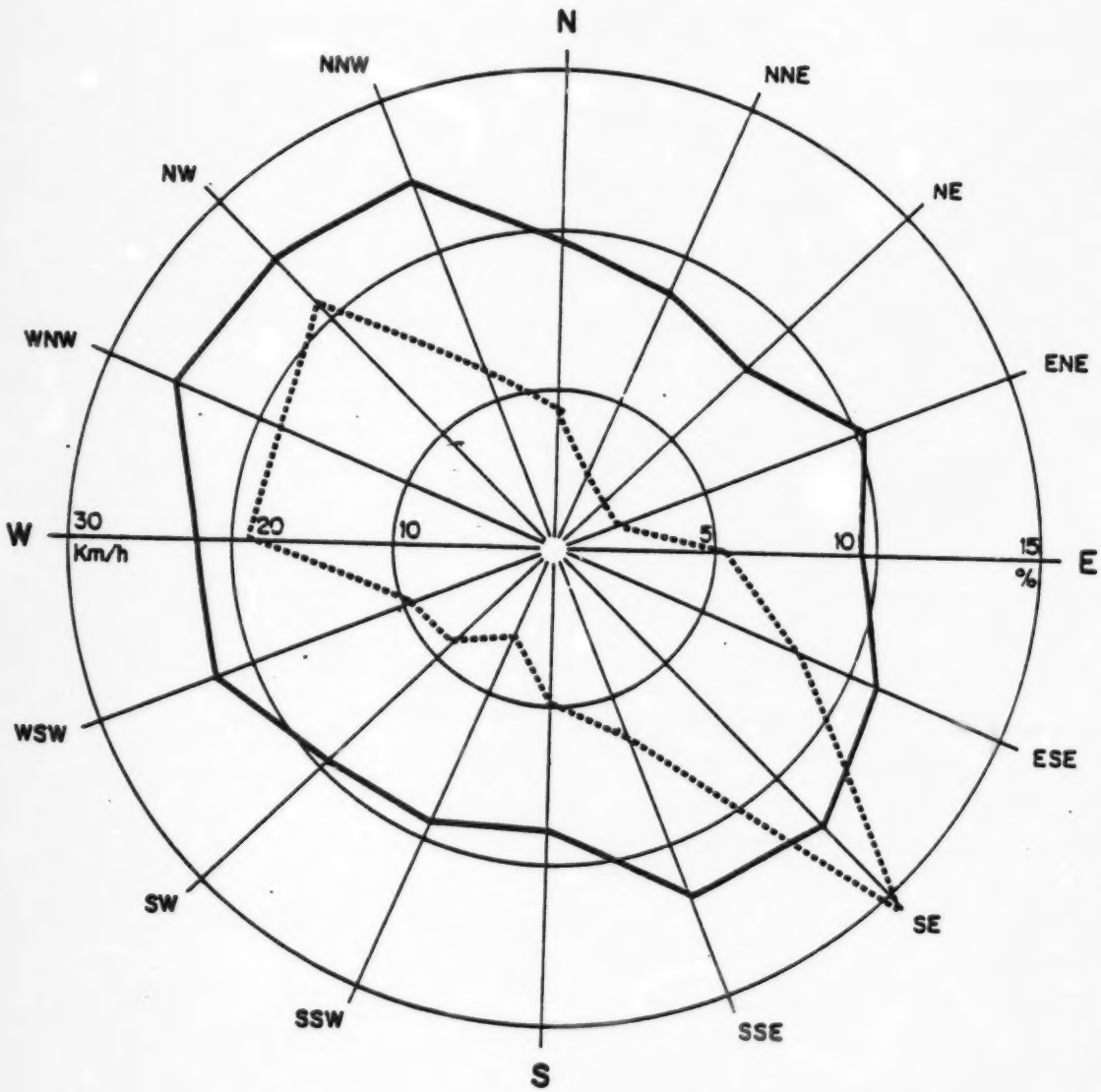


FIGURE 2
WIND DIRECTION, FREQUENCY AND MEAN VELOCITY
FOR REGINA INTERNATIONAL AIRPORT
ANNUAL DATA 1955—1966

SEASONAL COMFORT CRITERIA ASSESSMENT

Scale model measurements of pedestrian level wind speeds, together with meteorological data for the site, are used for predicting the frequency of occurrence of wind speeds at certain locations around the proposed building. The likelihood of winds occurring varies with wind direction and season, and this is used in the analysis to weigh the test results from each wind direction so that the end result is a realistic estimate of wind speeds to be expected. The resulting wind speed probability distribution for each location is compared graphically to a set of activity criteria for each particular season. The point location is then judged on its acceptability for the anticipated use of the area.

The acceptability criteria for various activities are indicated by the shaded lines on the graphs accompanying this appendix. The top graph on the figure shows the acceptability criteria selected for the summer months. An example of the interpretation of these criteria is that for walking a weekly mean wind speed occurrence of approximately 16 km/h with gusts up to 32 km/h; a monthly occurrence of 24 km/h with gusts up to 48 km/h; and a seasonal occurrence of approximately 30 km/h with gusts up to 60 km/h are considered acceptable. The wind speeds considered acceptable for the other activities noted on this figure can be obtained by referring to the relevant location on the vertical axis for various frequencies of occurrence.

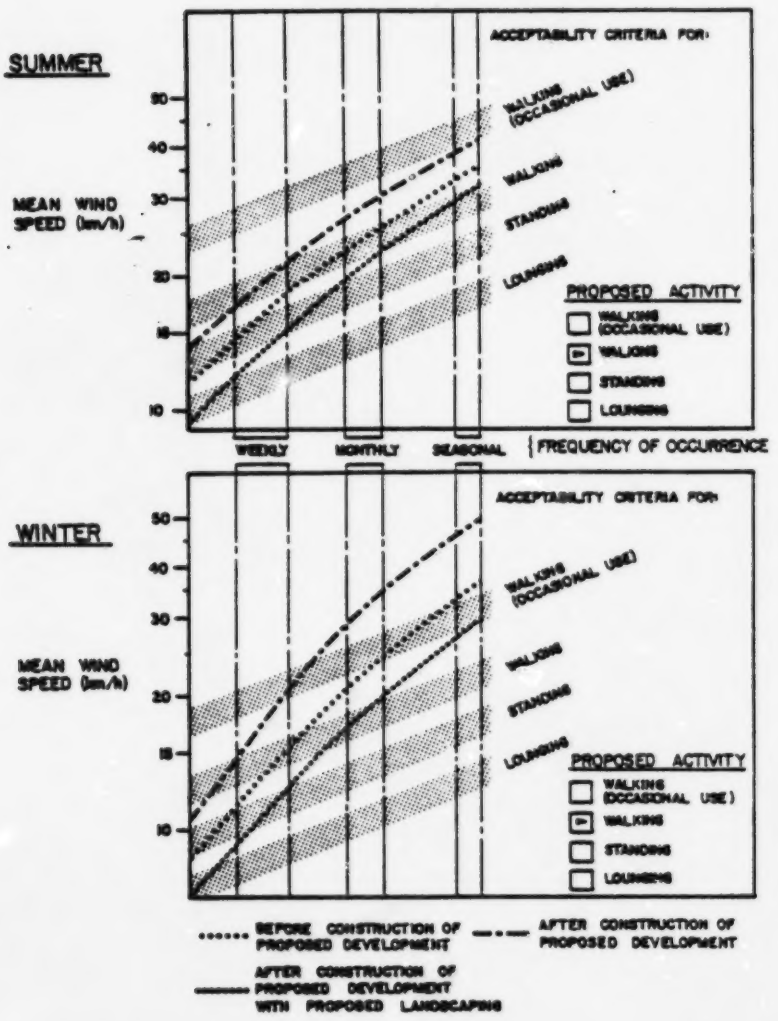
For the winter months the acceptance criteria are naturally more severe due to the effects of wind chill at low temperatures. As shown on the lower graph on the first figure, the acceptability criteria for walking now becomes a weekly occurrence of approximately 13 km/h (26 km/h gusts), a monthly occurrence of 18 km/h (36 km/h gusts) and a seasonal occurrence of 20 km/h (40 km/h gusts) which should not be exceeded.

On the graphs accompanying this appendix are examples of comparisons of the wind conditions at point location 'x' on a hypothetical site with the above acceptance criteria. The actual wind conditions which occur at location 'x' during the summer months before and after construction of the building are shown on the top graph of the figure. Pedestrians will be walking and not lounging in this area, and therefore the existing conditions are acceptable. After the building is constructed, the conditions will become less comfortable but are still in the acceptable range, however the addition of solutions reduces the wind velocities below the existing levels during the summer months. Pedestrians walking in this location during the winter months will experience uncomfortable conditions both before and after construction of the building as shown on the lower

plot on the first figure. The effect of adding the building is to increase the weekly occurrence of wind speeds from approximately 13 km/h to 18 km/h and therefore it is considered that the building has not significantly affected the existing conditions. Once again the addition of solutions reduces the wind velocities below the existing wind levels.

Similar interpretations of various locations examined in this study are given in the summary in the main body of the report.

MEAN WIND SPEED AND RELATIVE COMFORT LEVEL AT LOCATION (X)



NOTE: THE MEAN WIND SPEEDS SHOWN MAY BE DOUBLED DUE TO GUSTS.

PRINCIPLES OF WIND ENGINEERING

Morrison, Hershfield, Theakston and Rowan, Limited was retained by the City of Regina to complete a pedestrian level wind study on the downtown area of Regina and to offer advice on the preparation of wind control requirements for the future downtown development of Regina.

Pedestrian level wind conditions in many downtown areas are becoming increasingly problematic, principally due to the addition of high rise structures in the downtown core. It can be demonstrated using model simulation and flow visualization techniques that high rise buildings deflect winds from the upper levels of tall buildings to the pedestrian level. This additional flow causes increases in the pedestrian level wind speeds of two or even three times the wind speed experienced in areas unaffected by high rise buildings. On a typical day when wind speeds are 15 km/h in a suburban area around a city, a pedestrian within the downtown area will therefore be subjected to uncomfortable wind speeds in excess of 30 km/h. Every major North American city has areas which the residents of the city know as excessively windy areas.

Pedestrians in the City of Regina are well aware of the uncomfortable, and sometimes dangerous, wind conditions which presently exist at the City Hall and the S.G.I. Building. These conditions did not exist before construction of the high rise buildings in these areas.

Increasing the number of high rise developments in the downtown Regina area will result in an increase in the number and severity of wind problems if proposed developments are not assessed for their effects on the pedestrian level microclimate.

It is possible to design high rise buildings which will minimize the formation of adverse pedestrian level wind conditions. Scale model wind simulation tests can assist in this process. Such tests, conducted on the design of a proposed building, can assist architects in producing the optimum shape of a building to satisfy the requirements of good wind engineering practice while fulfilling the architectural constraints on the building.

The consideration of the wind environment around a project is advantageous to both the surrounding area and to the project itself since the commercial viability of ground level

retail areas can be jeopardized or pedestrian malls and downtown parks can be made too windy for frequent pedestrian usage.

General guidelines describing the wind flows around buildings have been included in this appendix in the accompanying figures. It is possible to use these guidelines, in conjunction with the meteorological data for Regina, to develop planning guidelines for desired building shapes in downtown Regina. As can be seen from the wind rose shown in Figure 2, the wind directions which require the most consideration are in decreasing order of importance: southeast, northwest, west-northwest, west, east-southeast, north-northwest and south-southeast.

When applied to Regina, the general guidelines shown in the enclosed figures provide the following specific guidelines which will assist in providing a comfortable pedestrian level microclimate.

Building faces which are oriented towards the prevailing north, west and southeast directions should receive the following general treatment:

1) Building faces should rise vertically above pedestrian levels for only 2 or 3 storeys and should then be set back by approximately 10 metres.

2) Canopies above pedestrian areas should be used.

3) Arcades, 3 to 5 m deep and/or 2 storeys high, preferably with large columns for protection, should be used.

4) Boulevard trees, planted to allow the foliage of the mature tree to be as close to the face of the building as possible, should be used outside of the arcades.

5) Building faces which are stepped away from pedestrian areas at a rate of approximately the dimension of one storey for each vertical rise of one storey will be less problematic.

6) Towers with a curved or hexagonal plan form deflect less wind to the pedestrian level than towers with a square or rectangular plan form.

If two or more towers are proposed for the same development, and are to be constructed on the same site, the space between the towers should be in a northeast-southwest direction or east-west direction.

Open passageways through tall buildings are not recommended, however if constructed they should not run in a direction aligned with prevailing winds. Passageways aligned in the north-south direction would be better than in the east-west direction.

In all major downtown developments, sufficient area should be provided around pedestrian areas, in order to allow room for landscaping that may be required to control locally adverse wind conditions.

If the City of Regina proposes to control future downtown growth with respect to wind, then any requirements drafted should state:

1) That all buildings, regardless of height, must be reviewed for wind impact on the downtown development. Within the downtown area, all proposed buildings should include at least a statement on the effect of the proposed building, as even 6 or 8 storey buildings can be critical.

2) That any statements on wind effects should be submitted by qualified wind engineers and, more important, the reasons for the statements should be substantiated. This should consist of at least a discussion of the wind flows within the area for the prevailing wind directions. Model simulation tests which can, if necessary, be demonstrated to a Development Officer, leave no room for opinion on the part of the professional involved.

3) That the optimum benefit from a wind study is obtained at the early massing stages of a project. Proof that wind has been one of the design considerations from the onset of the project is the ultimate method of enforcing wind control. This could be accomplished by requiring a brief report discussing why a particular arrangement of buildings or shape of a building had been selected from a pedestrian level wind point of view. A report such as this should be submitted as part of the first submission of a development.

4) That if the above report on the massing of the buildings suggests possible wind problems, a detailed study should be requested. The detailed study should clearly state how the design was altered to overcome the problems discussed in the massing study.

In conclusion, wind engineering can be a useful tool for minimizing the adverse pedestrian level wind conditions in the downtown city core of Regina. In order to ensure that adverse wind conditions are minimized, future developments should be required to consider wind engineering aspects of the design and to take remedial action to alleviate uncomfortable conditions before construction begins.

GUIDELINES FOR UNDERTAKING PEDESTRIAN LEVEL WIND STUDIES

When a new building project is undertaken, consideration for any adverse wind conditions which may result from the construction of the building should be taken into account in the initial planning stage. Many uncomfortable wind conditions which exist in the vicinity of newer developments could be eliminated at the design stage if wind studies were undertaken. There are basically three different types of studies, as follows:

1. Wind Impact Statement
2. Massing Study
3. Detailed Pedestrian Level Wind Study

1. Wind Impact Statement

This type of study consists of an examination of the drawings of a proposed building and the meteorological data for the site. This data, coupled with the knowledge of general wind behaviour around buildings, is used to produce a written assessment of the potential wind environment around the proposed building. This type of study is sufficient when dealing with buildings up to approximately 15 storeys providing they have no novel design features such as a scalloped outer wall, walkways extending through the building, unusual width (i.e., greater than 75 m), heavily built-up surroundings, etc. A wind impact statement could be completed during the preliminary design stage of a project. Uncomfortable wind areas would be identified and some remedial measures would be recommended to reduce or eliminate any wind related problems.

2. Massing Study

A massing study should be undertaken at the early stages of design of a major project that includes one or more towers of greater than 15 storeys or includes many low-rise elements on the site. For this type of test, a scale model of the proposed development is constructed and tested in an open channel waterflume and a boundary layer wind tunnel. The primary aim of this type of study is to determine areas both surrounding and within the study site likely to experience uncomfortable wind conditions and suggest the optimum building form which will alleviate any potential pedestrian level wind problems.

Wind flow patterns in the vicinity of the proposed development are determined visually in an open channel waterflume. Once the wind patterns have been mapped, detailed wind

speed measurements are obtained at critical point locations around the proposed site in a boundary layer wind tunnel. This data is then used to determine which of the prevailing wind directions tested causes most high wind speeds. After identifying critical wind directions, the model is retested in the waterflume where the path of the approaching wind can be traced and either deflected, diffused or redirected away from the critical area. Recommended remedial solutions are in the form of the addition, subtraction or relocation of mass to effectively reduce or alleviate any potential uncomfortable wind situation.

For this type of study, a meeting with members of the design team is required during the design phase to illustrate the effects of the proposed remedial solutions. After this meeting, further testing would be undertaken in the waterflume to modify any solutions which were unacceptable.

3. Detailed Pedestrian Level Wind Study

Once the final massing of a building has been determined, a detailed pedestrian level wind study is usually necessary if any localized uncomfortable wind conditions still persist after the massing study.

For this study, a detailed scale model (usually 1:500) is constructed of plexiglass of the final design of the proposed building. Remedial solutions to critical areas are developed in a waterflume and tested in a boundary layer wind tunnel to determine their effectiveness.

The solutions are in the form of building details and/or landscaping which can be incorporated into the design without having an adverse effect on the architectural, functional or other aspects of the project. The model is tested for various wind directions with particular attention being paid to the prevailing wind conditions. A thorough examination is carried out of all areas that are considered critical such as entrances, plaza areas, walkways, pedestrian lounging areas, podiums, etc.

This study also requires a meeting with project representatives to illustrate the effects of the final remedial solutions. Further testing is conducted to determine alternatives to any solutions which are found to be unacceptable.

APPENDIX C
to PART G of the
Regina Development Plan.

A HERITAGE PROGRAM FOR THE DOWNTOWN

City of Regina
Planning Dept.
1983

A HERITAGE PROGRAM FOR THE DOWNTOWN

This report forms one of the component studies of the development plan for downtown Regina.

The passage of the Heritage Property Act in 1980 enabled municipalities across Saskatchewan to become involved with the protection of their heritage resources. The program described in this report outlines a direction for Regina's development which was not foreseen or enabled in the 1970's. That direction is the retention and rehabilitation of Regina's heritage in the redevelopment of its downtown.

City Planning Department
Regina, Saskatchewan

July, 1983

APPROVED FEBRUARY 6 1984

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INTRODUCTION

The retention of the heritage of the Downtown is of importance to the City as a whole. There are cultural benefits in preserving the character and history of Regina as well as social and economic benefits from the adaptive reuse of interesting, older buildings into restaurants, offices, etc.

The heritage resources of the Downtown have been identified through an inventory of potential heritage property. This inventory can serve as a basis for the evaluation of future municipal heritage designations and the impact on the community of demolitions and alterations to potential heritage property and its environs.

The preservation of the character of an area cannot be achieved solely through the retention of "gems" or individual buildings of heritage significance. An integrated streetscape is required with infill development of a scale or form, colour, and material compatible with the older, adjacent buildings.

The development of public incentives such as Federal, Provincial, and Municipal tax relief and grants can greatly encourage private rehabilitation efforts. Government leasing policies can also assist in the preservation of the character of the Downtown. The Saskatchewan Revenue Building at the corner of Smith Street and 12th Avenue is an example of successful adaptive reuse by the Province, while the vacant Canada Life Assurance (S.G.I.O.) Building presents an opportunity for rehabilitation.

The City can take a leading role in demonstrating the potentials of adaptive reuse by recycling its own property. The use of a proposal call which invites design concepts has the advantage of promoting the adaptive reuse project, involving that component of the design community which chooses to participate.

Finally, the heritage of the Downtown must be promoted if it is to be appreciated and protected. Tours and publications can inform the community at large, as well as visitors, of the heritage resources of this area. Promotion of successful rehabilitation efforts can also have spin-off effects within the Downtown.

Policy Objectives

1) To encourage the retention, preservation and appropriate rehabilitation of heritage buildings in the Downtown.

2) To encourage a compatible visual relationship along the street facade between heritage buildings and adjacent new developments.

3) To encourage and develop private and public financial resources and techniques in the preservation improvement and utilization of heritage buildings in the Downtown.

4) To encourage other levels of government to take appropriate action to enable the preservation, improvement and utilization of heritage buildings within the Downtown.

5) To retain and preserve City-owned properties of heritage significance in the Downtown.

6) To promote and publicize the heritage of the Downtown.

Summary of Recommendations

This report deals with a broad range of policy issues each of which determine the heritage program for the Downtown. The following recommendations have been consolidated.

1) That the inventory of potential heritage property as identified in the Appendix to this Heritage Program, be adopted as a basis for the consideration of future heritage designations by the City of Regina.

2) That any proposed demolitions or alterations to properties on the inventory of potential heritage property be forwarded to the City of Regina Municipal Heritage Advisory Committee for review.

3) That the City of Regina promote the heritage of the Downtown and successful rehabilitation projects through the preparation of walking tours, slide presentations, an interpretive plaque program, heritage awards and by any other means considered appropriate.

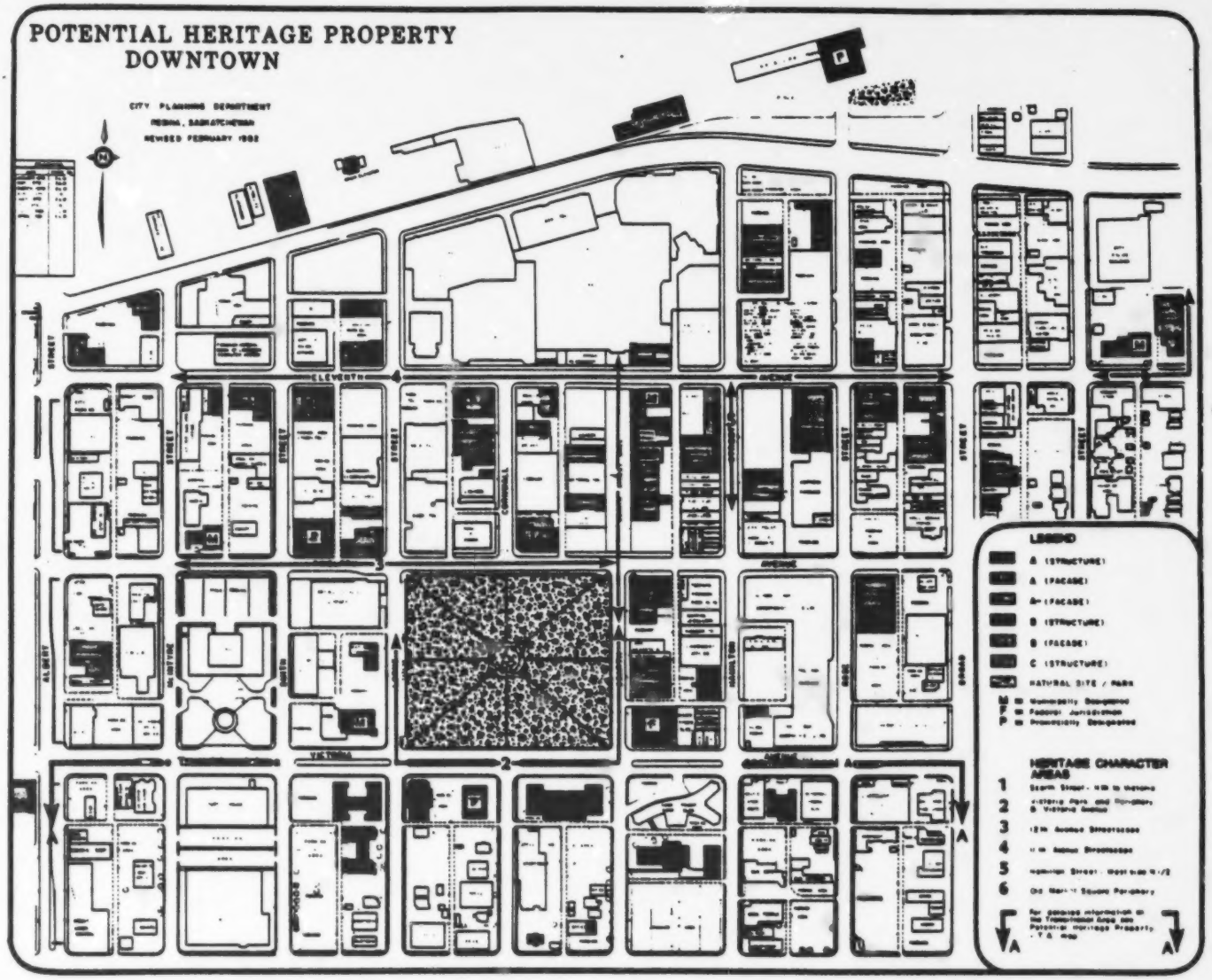
4) That a program of monetary and non-monetary incentives be developed and promoted by the City of Regina in order to encourage the sensitive rehabilitation of signficant and contributory heritage properties in the Downtown.

5) That the Federal, Provincial and Municipal governments be requested to support the objectives of this development plan by leasing space in rehabilitated structures as well as in new buildings.

6) It is recommended that the policies for municipal heritage preservation as outlined be adopted.

1. To protect, preserve, restore, rehabilitate and enhance heritage.
2. To prevent demolition, destruction or inappropriate alteration of heritage.
3. To encourage appropriate character and use adjacent to heritage.
4. To develop and foster creative, appropriate and economic uses of heritage.
5. To consider social and community needs in the preservation, improvement and utilization of heritage.
6. To encourage and foster public awareness, participation and involvement in the preservation, improvement and utilization of heritage, including policy formulation.
7. To encourage and develop private and public financial resources and techniques in the preservation, improvement and utilization of heritage.
8. To undertake research into the City's heritage and to identify methods for its preservation, enhancement and utilization.
9. To encourage other levels of governments to take other appropriate actions to enable the preservation, improvement and utilization of the City's heritage.
10. To coordinate heritage plans and programmes with the comprehensive planning programs of the City and other jurisdictions.
11. To provide a system for periodic review and updating of heritage plans and programmes.

7) That new development within the specific heritage character areas of the Downtown shall be encouraged to follow the design guidelines described in this report.


POTENTIAL HERITAGE PROPERTY
DOWNTOWN
CITY PLANNING DEPARTMENT
REGINA, SASKATCHEWAN
REVISED FEBRUARY 1982
LEGEND
A (STRUCTURE)
A (FACADE)
B (STRUCTURE)
B (FACADE)
C (STRUCTURE)
NATURAL SITE / PARK
HERITAGE CHARACTER AREAS
1
2
3
4
5
6
ELEVENTH
VICTORIA
ALBERT
SCARTH
HAMILTON
BROAD
COLLEGE
ANGUS

THE BENEFITS OF HERITAGE PRESERVATION

A community's heritage is that which is inherited from its past. Our historic built environment is a major physical expression of cultural inheritance and has a direct significance in our community's daily life and visual surroundings. "Heritage", can signify sites, structures, buildings, areas, and environments of historic, architectural or cultural interest.

Heritage is a valuable community resource which provides cultural, educational, physical, social and economic advantages. Heritage properties and areas are a manifestation of our history, past values and evolution. Heritage offers rich, irreplaceable architectural styles which provide the character and variety essential to a vital urban environment. Heritage preservation will provide an identifiable, cohesive sense of "place" within the larger urban scene, along with fostering a sense of community. It will contribute to our identity as a city with its own unique character.

Heritage will generate tourism benefits for our City. The reuse of heritage properties can also offer economic alternatives to new construction and is more labour intensive than new construction.

Properties which have been designated by the City are eligible for Municipal Heritage Property Grants from the Saskatchewan Department of Culture and Recreation. This grant of up to $20,000 over two years is awarded on a matching basis for the purposes of restoration and stabilization.

A more comprehensive description of the benefits of heritage preservation is included as Appendix A of this report.

INVENTORY AND EVALUATION

The inventory of potential heritage property in the Downtown is an ongoing activity of the Planning Department. Properties are identified, photographed, inspected, and researched using sources such as the Regina Henderson's Directories and 1911 Insurance Plans. The inventory is continually updated as new historical information becomes available, and as the condition and ownership of properties change.

Properties are evaluated based on the criteria developed for Parks Canada by Dr. Harold Kalman. These evaluation criteria are used extensively across North America and are described in Appendix C of this report. The evaluation of property changes in the context of the changing face of the Downtown. For example, the demolition of one property will increase the significance of the remaining example(s) of that style. A property may diminish in significance, because it has been left to deteriorate over a long period of time until it reaches the point of structural deterioration wherein adaptive reuse is unfeasible. The point of no return, however, requires a careful analysis so that heritage properties are not demolished unnecessarily . In the case of the majority of potential heritage property in the Downtown, it is the facade of the building which is of heritage significance.

The inventory forms a basis for the evaluation of municipal heritage designations and new developments which may impact on heritage properties.

INCENTIVE MECHANISMS

The development of incentive mechanisms is necessary in order to encourage the preservation and ongoing maintenance of heritage buildings and facades in the Downtown. Whereas Municipal Heritage Designation is not legally deemed to injuriously affect property owners, in many instances the property owner will be reluctant to designate his property because of a perceived or actual financial hardship. Irrespective of whether or not the assistance provided by the municipality is perceived as "compensation" or more positively as "incentives", the provision of this assistance is critical to a viable municipal heritage program which will have the support of the private sector. Regina City Council has authorized a public participation process to solicit ideas on the further development of municipal incentives. A report on this subject will be prepared after completion of that process.

CITY POLICY

A preservation strategy for the Downtown should be carried out within a framework of defined goals for the City. Municipal involvement in the preservation of its heritage resources has only recently come about with the passage of the Heritage Property Act in 1980. This has provided a framework for the development of a policy for heritage preservation in Regina.

Rationale

In the development of these policies, it is recognized that there is a value in the retention of heritage buildings, sites, structures, streetscapes, areas and environments in terms of their educational, aesthetic and cultural benefit to the citizens of Regina now and in the future. It is recognized that a responsibility exists now toward the preservation and integration of this heritage within the comprehensive planning needs and requirements of the City of Regina and that alternatives to the demolition of the historical component of the urban core need to be explored. It is recognized that the benefits to the City of heritage preservation are of sufficient importance to merit public expenditure of money, time and effort towards implementation of this heritage policy.

Goals and City Policy

1. To protect, preserve, restore, rehabilitate and enhance heritage.
2. To prevent demolition, destruction or inappropriate alteration of heritage.
3. To encourage appropriate character and use adjacent to heritage.
4. To develop and foster creative, appropriate and economic uses of heritage.
5. To consider social and community needs in the preservation, improvement and utilization of heritage.
6. To encourage and foster public awareness, participation and involvement in the preservation, improvement and utilization of heritage, including policy formulation.
7. To encourage and develop private and public financial resources and techniques in the preservation, improvement and utilization of heritage.
8. To undertake research into the City's heritage and to identify methods for its preservation, enhancement and utilization.
9. To encourage other levels of governments to take other appropriate actions to enable the preservation, improvement and utilization of the City's heritage.
10. To coordinate heritage plans and programmes with the comprehensive planning programs of the City and other jurisdictions.
11. To provide a system for periodic review and updating of heritage plans and programmes.

AREA SPECIFIC STRATEGY

In the context of the Downtown Plan, a general policy and implementation strategy has been described which attempts to preserve the remaining heritage character of the Downtown.

There are, however, several sub-areas within the Downtown which require special attention because of their unique heritage and environmental character.

Sub Area 1: Victoria Park and Periphery

The southern periphery of Victoria Park as defined in area 2 on the enclosed map includes a significant number of heritage properties. This area is important from a heritage, as well as environmental standpoint, because of the importance in maintaining sunlight access to Victoria Park, the sole green space and passive recreational space in the Downtown. The protection of this area will be ensured through the designation of individual sites as well as the proper zoning of sites to ensure an adequate reflection of existing uses and a scale which will permit sunlight access into Victoria Park.

Victoria Park and Periphery

Sub Area 2: Scarth Street

Scarth Street, as identified by area 1 on the map, represents a very significant component of the heritage of the Downtown. The East side of the 1800 Block Scarth represents the last intact commercial streetscape in Regina which predates World War 2. It is, therefore, a rare and irreplaceable resource in the Downtown which can contribute to the interest and vitality of the pedestrian and retail network in Regina's Downtown.

Scarth Street Streetscape 1800 Block East Side

Sub Area 3: 12th Avenue

12th Avenue between McIntyre and Scarth Street as identified by area 3 on the map contains several significant heritage properties. The height, massing and treatment of new development which abuts these properties, should be sympathetic to the heritage buildings.

Sub Area 4: 11th Avenue

11th Avenue between McIntyre and Broad, as identified by area 4 on the map, contains a number of heritage buildings and facades. As in area 3, the height, massing and treatment of new development which abuts these properties, should be sympathetic to the heritage buldings.

There are several properties in the Downtown which merit attention beyond that covered in the general policies and incentives discussed thus far because of their exceptional significance and/or the possible threat of demolition in the near future. Based on the results of the preliminary inventory of potential heritage property, the following properties are rated very highly:

- The Northern Crown Building	1819-25 Scarth
- The Leader (now Torwest Building)	1853 Hamilton
- The Allen Theatre	1800 Broad
- The Smith Block	1755 Rose Street

DESIGN GUIDELINES

Downtown Regina has a rich heritage of older buildings. New buildings which incorporate or are adjacent to a designated or potential heritage property should be designed in such a manner that they are compatible with the heritage properties. The following design guidelines are suggested:

A) Where new development is proposed adjacent to a designated or potential heritage building the new building should relate to the design elements of the heritage building as follows:

i) Overall height, heights of cornices, string course (distinctive horizontal lines on a building facade forming part of the design), and each storey;
ii) Proportion of the facade or parts thereof;
iii) The rhythm of window openings, pilasters, or other vertical design elements on both the ground and upper storeys;
iv) Building materials (type, colour and texture);
v) Architectural detailing--how the various elements of structure are put together;
vi) Scale--how the sizes of various units of contruction (such as bricks or windows) relate to the size of a person; and
vii) Directional expression of facades--most older buildings have a vertical character to their facades and window treatment)

B) New buildings which incorporate or are adjacent to a potential heritage building should, depending on the actual form of the heritage building be designed in a podium-plus-tower composition.

C) The facade of the podium portion of a new development should be set back from that of a heritage building. Where such an overall setback is not possible and both old and new facades are on the same or nearly the same plane, a physical architectural separation, such as a recess, may be needed to distinguish the two facades.

D) The tower portion of a new development which includes or is adjacent to a heritage building should be set back from the line of the facade of the heritage building to allow the heritage building to appear to be standing independently to the greatest extent possible, and to avoid the heritage building being dominated by the tower when viewed from pedestrial level.

E) Landscape elements should be extensively used to visually integrate a heritage building and an adjacent newer structure. These elements include the varieties of plant materials used, structures such as retaining walls and plant containers, and paving colours, textures, and materials.

APPENDIX B

Inventory of Potential Heritage Property City of Regina

Highly Rated Sites

Area: Downtown

Date: August 20, 1982

Abbreviations:

Design

C - Commercial

Architect

S.V.E. - Edgar & Stan Storey and W. G. Van Egmond Architects
P. C. - Francis Portnall and/or F. Chapman Clemesha
B. V. - David Brown and Hugh Vallance
S.D. - Maurice Sharon and/or F.N. Darrach

Comments

D. M. - Designated Municipal Heritage Property
D. P. - Designated Provincial Heritage Property

For more detailed information please consult the inventory forms in the Planning Department.

DOWNTOWN SURVEY

HIGHLY RATED SITES

Address	Name Historic (Current or Tenant)	Date	Design	Architect	Comment
Albert Street					
2000	Sherwood Store (Sask. Wheat Pool)	1913	C	B.V.	D.M. In process
McIntyre Street					
1861 (1859)	St. Paul's Cathedral	1895	Gothic Revival	F. Peters W. Reilly	D.M.
Smith Street					
1808 (also on 11th)	Somerset Block	1914	C		
1865	Sask. Co-op Elevator Co. (Sask. Revenue)	1914	C	S.V.E.	D.P.
Lorne Street					
1750	F. J. Stephens Paint Warehouse (Post & Beam)	1924	C		
1860	Regina Public School Board	1929	Tudor Gothic	Reilly	Considered by M.H.A.C.
1870	Sask Tel Exchange (Regina Public School Board)	1912	Renais-	S.V.E.	Considered
1930	Masonic Temple Telephone Building	1926		Portnall & Reilly	
1978	Knox Met. United Church	1912	Gothic Revival	Darling, Pearson Portnall & Puntin	D.M. In process
Cornwall Street					
1814 (also 2215-11th)	Canada Life Assurance (S.G.I.O.)	1912	C-High Rise	B.V.	D.P.
1819	(Suma Building)	1928	Neo-Classical		

Address	Name Historic (Current or Tenant)	Date	Design	Architect	Comment
1820	Canadian Legion Memorial Hall	1930	Art Deco.		
1840	R.M. of Sherwood #159	1927	C		
1863	Burns Hanley	1910	C		
1879 (2184 - 12th Ave.)	Credit Foncier	1911	Neo-Classical	S.V.E.	
Scarth Street					
1770 (2102 11th Ave) Cornwall Centre	The Bank of Ottawa (Elephant & Castle)	1911	Neo-Classical	S.V.E.	Part of Cornwall Centre
1775	Imperial Bank of Canada (Can. Imperial Bank of Commerce)	1912	Neo-Classical	Darling & Pearson	
1813 (1801)	Old Post Office (City Hall Mall)	1907	Beaux Arts	David Ewart	D.M.
1819 - 25 (1821)	Northern Crown Bldg.	1905-6	Neo-Classical	Blair & Northwood	
1833 (1829)	The Gilmour Block (Silkolina)	1913	C		
1834	Armstrong Smyth & Dowswell	1910	C-Regency Chinese influence		
1838	The Princess Theatre (Sportsman)	1910-11	C		
1839	Wildun Lodge	1908	C	F.C. Clemesha	
	The Mitchell Building	1929	C		
1857 (1855)	The McAra Block (Sam The Record Man)	1912	C		
1859	Heintzman Building (Regina Piano)	1909-12	C		
1861	The Assiniboia Block (Canada Drug and Book)	1910	C		
1874 (1876)	Demolished				
1919-21	(Halmac Ins.)	1930	Art Deco		
1945	Victoria Park Building	1929	C	S.V.E.	
1975	Dominion Government Building	1935	Art Deco	Portnall	Federal Jurisdiction
Hamilton Street					
1767 (1765)	Wolfe (Yaeger Furs)	1915	C		

Address	Name Historic (Current or Tenant)	Date	Design	Architect	Comment
1828 (also on 11th)	Royal Bank of Canada (Bank of Montreal)	1917	Neo-Clas		
1830-34	McCallum Building (Loggies Shoes)	1910	C		
1836-38	Bond Exchange (LaSalle Hotel)	1910	C		
1842	LaSalle Hotel	1929			
1843	Regina Plumbing & Heating Company (Kyles Sporting Goods)	1912	C		
1853	Leader Post Building (Torwest Building)	1912	C	B.V.	
1944-58		1929	C		
1965	Municipal Hall	1923	Neo-Classical		
Rose Street					
1755	J. W. Smith Block	1907	Edwardian Commercial	S.V.E.	
1919	(Town Square)	1929	C		
Broad Street					
1800 (1801-11th Ave.)	Allen Theatre (Met Theatre)	1917			
12th Avenue					
2158-70	Aldon Block (Gordon Block)	1912	C		
2031 (2035)	Capitol Theatre	1920	Moderne	S.V.E.	
11th Avenue					
1602	Central Fire Hall	1920		Clemesha & Portnall	D.M.
1907	Drake Hotel (Carriage Square)	1925		S.V.E.	
1913	Wood Block (Kresge Co.)	1910	C		
1925	Demolished				
2020	Western Trust (Guaranty Trust)	1910	C	Sharon & Darrach	
2125	Darke Block (Cornwall Professional Building)	1910	C	S.V.E.	

Address	Name Historic (Current or Tenant)	Date	Design	Architect	Comment
2217	Offices (datestone)	1928	Art Deco	S.V.E.	D.P.
2300	Donahue Block (Reliable Stationery)	1914	C		
2323	Lloyd's Building (Grothe Barber Men's Shop)	1914	C		
2325-35	(Children's Corner D.A.A.)	1914	C	S.V.E.	
2425	Yaeger Block (Fresh Air Experience)	1928	C		
2124	Merchant's Bank (Regina Transit Centre)	1920	Neo-Clas-		
Saskatchewan Dr.					
1880 (1900)	Union Station	1911-31	Beaux-Arts	J. Orroch	D.P. In process
2040 (2030-34)	CN/CP Telecom.	1930			
2300 (2310-530)	(McCabe Seed Ltd.)	1915			
2344 (2330-529)	Massey Harris Warehouse	1928	Indus-trial	J. Orroch	
Victoria Park					
		1884 1907		F. Todd	

The following properties south of Victoria Avenue are also included in the Transitional Area Study.

Victoria Avenue					
1925	The Assiniboia Club	1912		S.V.E.	
2205	Land Titles	1906			
2305	The Balfour	1929		S.V.E.	
2241	First Bapti st Church	1912	Greek Revival		
2125	Hotel Saskatchewan	1927		McDonald & Ross	
Lorne Street					
2022-24	The Frontenac Apts.	1929			

Address	Name Historic (Current or Tenant)	Date	Design	Architect	Comment
Scarth Street					
2049	St. Mary's (Blessed Sacrament)	1905	Gothic Revival		
2076	James Duncan Residence (Meyer House)	1905			
Hamilton Street					
2030-26	St. Mary's Club	1911			
Cornwall Street					
2075		1904			